

MEDICAL MEMOIRS

OF THE

GENERAL DISPENSARY
in LONDON,

For part of the Years 1773 and 1774.

By **JOHN COAKLEY LETTSOM,**

M. D. F. R. and A. S. S.

And Physician to the General Dispensary.

12 Fe
Tolle mihi é causa nomen Catonis : remove, ac præter-
mitte auctoritatem, quæ in judiciis aut nihil valere, aut
ad salutem debet valere, —

CICERO.

L O N D O N :

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M DCC LXXIV.

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MEDICAL MEMOIRS

OF THE

The Earl of Pembroke & Montgomery

GENERAL DISPENSARY



— OH PITY HUMAN WOE!
TIS WHAT THE HAPPY TO TH' UNHAPPY OWE.

POPE:

T O

The Earl of DARTMOUTH, President,

Sir Lyonel Lyde, Bart. }
Thomas ^{AND} Nash, Esq; } Vice Presidents;

James Johnson, Esq; Treasurer;

AND THE

Governors of the GENERAL DISPENSARY;

T H E

Following W O R K

I S

Respectfully inscribed,

B Y

The A U T H O R.

INTRODUCTION.

THE poor are a large as well as a useful part of the community; they supply both the necessary and ornamental articles of life; and they have, therefore, a just claim to the protection of the rich, whose interests must direct them to encourage the industrious in their employments, to frame laws for the maintenance of their rights, and to rescue them in the misfortunes to which they are unavoidably incident.

This mutual obligation between the rich and the poor, neither of whom could long subsist without the aid of the other, has in all nations formed the most natural and permanent ground of intercourse between the different degrees of the people; the artisan always depending upon the affluent

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This mutual obligation between the rich and the poor, neither of whom could long subsist without the aid of the other, has in all nations formed the most natural and permanent ground of intercourse between the different degrees of the people; the artizan always depending upon the affluent

for employment, and the success of the artizan being always necessary to the ease and convenience of the affluent.

In a country, where many individuals are enriched by commerce, and where all people are possessed of civil liberty, and the unrestrained exercise of their faculties, the ornamental and necessary arts must unavoidably flourish: but, wherever many persons are employed, labor must be cheap; the earnings, therefore, of the artizan, will seldom exceed his expences; and as many of these arts depend upon circumstances, changeable in their nature, multitudes must thereby be liable to suffer a temporary poverty.

However, whilst health continues, the resources which daily open to the industrious in a trading country, afford also a temporary subsistence to their families: but a long continuance of health, is the lot of few; the poor, from the occasional want of employment and wholesome food, from exposure to all changes of the weather,

ther, and from various other causes, are often visited with sickness, as well as with poverty; one, indeed, is consequent upon the other; and thereby they become the immediate objects of assistance; it is then peculiarly necessary that the hand of pity should be extended, to soften the pangs of a sick bed, and to restore health and ease to the poor in affliction.

But affecting as the picture of poverty united with disease may appear, it serves to heighten our approbation of the generous and benevolent spirit, which every quarter of this city nobly exhibits; the numerous hospitals, and other munificent receptacles for our distressed fellow-creatures, are undeniable proofs of the piety, compassion and liberality of the opulent, which no preceding age ever afforded. Greece had her exquisite statues, and Rome her public baths and edifices; but Christianity hath introduced genuine compassion and beneficence, unknown both to ancient Greece and Rome.

In a free country where the manners of the people are thus softened and humanized, and amongst whom mutual interests must perpetually subsist, a spontaneous gratitude will naturally arise in the poor towards their benefactors, to repay by their industry those obligations which their unavoidable sickness had incurred; they not only meet their families with pleasure, but they are animated to follow their daily labor with redoubled cheerfulness and vigor.

I have been too intimately acquainted with the condition and manners of the poor, to want facts in support of what I advance; if I err, it will be in not doing sufficient justice to that industry and gratitude, which they exemplify in their general deportment. Those, who form their judgment from a superficial observation of a few intoxicated objects who are found in the most frequented places, are much mistaken with respect to the body of the laborious poor, who humbly seclude themselves

in miserable courts and alleys. Vice is barefaced, and boldly exposes itself in the open streets; but modest worth steals from the public eye, and frequents the most solitary avenues: one vicious man, therefore, becomes more conspicuous than a thousand good men; and our conclusions cannot be just, without being formed from the whole, both with respect to the lower as well as the higher stations of life.

When I consider the distresses of the indigent, I rather admire that the instances of their misconduct should be so rare: when they behold the affluence, ease and indulgence of their superiors; when, in spite of their utmost industry, they can with difficulty support their families; and when sickness and disappointments supervene; it is not to be wondered at, if some expressions of discontent should break forth amongst them. But let such only judge of these repinings, who have seen a whole family, that once experienced better days, confined to one chamber and one solitary bed,

bed, with sickness, with want, and a total incapacity to raise one penny; let such try the experiment without murmuring, before they form a conclusion to the disadvantage of the sufferers.

During the last year, I have attended nearly seventeen hundred poor persons, into many of whose habitations I have entered, and been conversant with their sufferings, and their resignation under them; in both of which they have exceeded many of their fellow-creatures, whose lot has cast them in a superior station, and whose contentment under temporary miseries, should ever be sustained by this comparative reflection;

What myriads wish to be as blest as I!

SHENSTONE.

Great cities are like painted sepulchres, their public avenues, and stately edifices, seem to preclude the very possibility of distress and poverty: but if we pass beyond this superficial veil, the scene will be reversed; the pleasing lights and shades of
the

the picture will be blended with, and lost in a dark back ground.

A man conversant only with the common concerns of life, would infer, upon the least reflection, that as families, in the middle station, with the utmost circumspection, cannot restrain their expences under some hundred pounds a year ; the labouring poor, and many ingenious artizans, who cannot possibly acquire more than forty or fifty pounds in the same time, must be liable to suffer much distress, either when out of employment, or when visited with sickness: temperance and labor render them prolific ; and to support a numerous family with all the necessaries of life, by their small earnings, is an invincible proof of the economy and industry that generally prevail among them.

Sometimes, indeed, by successive attacks of illness, they are incapable of procuring the common necessaries of life ; they have literally wanted bread, as well as cloaths ; and, instead of a bed, I have
often

often seen an old oil cloth substituted, and the whole furniture of it has been a worn-out blanket, insufficient to hide what decency requires. On such a couch I have found a husband, a wife, and two or three children at once chained by disease, without any resources to procure a morsel of bread; they have thus continued till the payment for their wretched dwellings became due, when this dismal confinement has been changed for the horrible restraint of a prison, loaded with putridity and poison.

It must be owned, indeed, that such examples of extreme distress do not very often occur: they are, however, much more frequent than is usually imagined by those who consider the amazing sum which the poor-rates annually amount to, and the various other provisions, calculated to relieve the indigent.

Though I wish not to accuse individuals, yet truth obliges me to say, that evils exist somewhere, which require immediate reformation.

mation. I have reason to believe that the sum annually raised, would supply all the necessities of the national poor, were it timely and properly applied; and this I can deduce from the conduct of a society whose poor are comfortably supported, and their children cloathed and educated, and set forward in life, with no great expence to the individuals of the community.

But from whatever causes the prevailing distresses of the poor may originate, present misery requires present aid, whereby health, which is so necessary to their subsistence, will be sooner restored; famine avoided; the nation enriched by industry, and a hardy race of useful members preserved to the community. The occasions of making ourselves happy, by extending relief to the needy, are numberless, and even seem adapted to diffuse happiness more generally among mankind. If affluence and independance could universally

versally prevail, the benevolent would not experience the inexpressible pleasure of relieving the distressed; neither could there exist that grateful satisfaction, which modest indigence ever feels from well-timed succor. In this city, however, there is no probability that these causes of mutual pleasure will ever be removed; but, on the other hand, the affluence of some rises in proportion to the necessities of others, whose wants silently petition for their assistance.

A little good, properly directed, is often great in its increase; the widow's mite was not bestowed in vain; no person, therefore, should withhold his hand, from the reflection that a little can produce no benefit; but rather be animated to do good, by observing that great effects have resulted from trifling causes; as the smallest spring is the source of a mighty river which waters numerous provinces; the loftiest oak of the forest is germinated from

from an acorn; and the particle, that seems lost in the ocean, may become a pearl of inestimable value.

The General Dispensary affords a striking instance of the great advantages which may arise from small beginnings; a few benevolent gentlemen, who form a little society, or club, first concerted this useful institution, by whose influence the number of subscribers towards its establishment, in the year 1770, amounted to about an hundred, when a physician was chosen, whose abilities and diligence in his profession, contributed to promote the reputation and prosperity of the Dispensary, and to add several subscribers to its support; the number of whom being augmented to upwards of three hundred, at the commencement of the year 1773, and the medical employment consequently becoming very laborious to Dr. Hulme, an additional physician was proposed; and the governors were pleased to elect me to
that

that office, during the contest for which about one hundred and fifty governors were added.

A surgeon was afterwards elected, when the subscribers were increased to six hundred at least. From this gradual accession there is reason to think that this mode of giving medical assistance, may soon be extended to every part of the metropolis, as well as to other large towns in this kingdom. Institutions of this kind, I am informed, have been already adopted one or two places; and with a view to promote their farther increase, I shall annex the plan of the General Dispensary in London.

The circumstance of visiting patients at their own habitations, being peculiarly laborious to the physicians, I have been obliged hastily to draw up the following pages, the cases being printed from notes taken at the bedside: but while the reader will see that I have paid very little atten-

tion

tion to elegance of style, I hope my endeavors to promote the interests of medicine, which are synonymous with the public good, will not appear to have been exerted in vain.

I have availed myself in this work of some cases which fell under my observation in private practice, and which tended to support or confirm those that occurred in the Dispensary; but they are distinguished from the latter by an asterism, placed at the head of each.

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A C C O U N T

OF THE

GENERAL DISPENSARY.

THE design of this institution is to administer advice and medicines to the poor, not only at the Dispensary, but also at their own habitations; which latter circumstance is an advantage peculiar to this plan. And notwithstanding the

b 2

many

many excellent charities, already subsisting for relief of the sick, in and about this great metropolis, yet, when it is considered how many poor, from the nature of their circumstances and disorders, are still necessarily confined to their wretched dwellings, and perish through want of proper assistance, the utility of this institution becomes obvious.

It is presumed that this charity will be particularly serviceable to such poor laboring families, when visited with illness, as have not wherewith to assist themselves, and yet are willing to exert their utmost endeavors for support in sickness as well as in health. What pleasure must it therefore afford the benevolent and humane to step in, at this critical time of distress, to their assistance, and to be, under Providence, the happy instruments of relieving those poor objects under their various afflictions!

THIS

THIS CHARITY extends also to the diseases of children; as it is too evident, that many of these, under a variety of slight maladies which affect their tender frames, are, by neglect or improper treatment, totally lost to the public, or if they survive, are rendered useless, if not burthensome members of the community. It is a melancholy truth, that near half the number born in *London* die under Two years of age.

The subscription is fixed low, with a view to render the charity more extensive, and give the industrious poor an easy opportunity of obtaining recommendations, from their benevolent neighbours, on the earliest attack of sickness; and thereby of receiving immediate help before their diseases have acquired that degree of violence, which indigence and delay must necessarily occasion.

The promoters of this undertaking therefore flatter themselves, that the humanity

and importance thereof will sufficiently recommend it: they rejoice in the encouragement it hath already received, and doubt not its continuing to meet with that attention from the public, which the nature and utility of the institution so deservedly claim.

PLAN

P L A N

OF THE

C H A R I T Y.

AS such an extensive plan could not be immediately carried into execution, in all the adjoining parts of this great metropolis, it was thought expedient to establish the First Dispensary in the city of *London*; and to settle the limits of visiting the sick at their own

habitations, for the present, within the liberties thereof.

The Dispensary is situated in *Aldersgate-street*, where a physician attends at eleven o'clock every day (*Sundays excepted*) to give advice to such out-patients as shall come recommended, and to visit the home-patients at the places of their abode, as the case may require.

— By out-patients are meant, such as are able to attend the Dispensary; by home-patients, such as are not able to attend.

Though home-patients are, for the present, such only as live within the city and liberties of *London*; yet out-patients are relieved without any restriction as to place of residence.

As there are medical cases, wherein surgical assistance is requisite, a surgeon attends on such occasions.

An apothecary constantly resides at the Dispensary, to receive letters of recommendation,

mendation, and to compound and deliver out the medicines prescribed by the physicians.

Domestic servants are not visited at the houses of their masters or mistresses, as that might be deemed an intrusion on the province of the family physician and apothecary, but, as out-patients, are admitted to the benefit of advice and medicine.

Chirurgical, venereal, and lunatic cases are not admitted, being the peculiar objects of other charities.

No persons are deemed objects of this charity, but such as are really necessitous.

Each patient is admitted by a printed letter of recommendation (vide pagexxviii) signed by a Governor; and, when cured, is to return thanks, that such Governor may be informed of his right to present another object.

A general court is held on the second *Wednesday* in *March*, *June*, *September*, and *December*, in every year.

A committee of FIFTEEN governors, (three of whom are a quorum) are chosen at the general courts in *June* and *December*, and meet at the Dispensary on the last *Wednesday* in every month; which committee is open for any governors who please to attend, and who are intitled to a vote equally with the gentlemen appointed thereon.

Persons subscribing one guinea annually to the support of this charity, are governors during the continuance of their subscriptions, and intitled to have One patient at a time upon the Dispensary list.

Governors subscribing two guineas annually, are intitled to have Two patients upon the list.

A benefaction of ten guineas constitutes a governor for life, and admits Two patients at a time upon the books.

Nobility,

Nobility, members of parliament, and ladies, subscribing as above, may vote at all elections, by any governor appointed proxy in writing for that purpose.

Annual subscribers, desirous of being governors for life, may become such, on paying within the year a further sum, to make up not less than ten guineas in the whole.

The

The **LETTER** of recommendation.

*The Governors of the General Dispensary
in London*

FOR RELIEF OF THE POOR.

GENTLEMEN,

I recommend

*believing
this charity.*

to be a proper object of

GOVERNOR.

Day of

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RULES

RULES to be observed.

1. That the Dispensary is open for the reception of recommendatory letters, and admission of patients, every Day (SUNDAYS excepted) at eleven o'clock.
2. That the patients attend the physician who first received them under his care.
3. That no persons are deemed objects of this charity, but such as are really necessitous ; and that chirurgical, venereal, and lunatic cases are not to be admitted.
4. That no patients are to be visited at their own habitations, but such as reside within the city of LONDON or liberties thereof.
5. That if any patient shall neglect to attend the Dispensary for ten days, such patient shall be discharged.

6. That

6. That the patients are to keep their letters of recommendation under cover, in order to preserve them clean.
7. That the patients, when cured, shall deliver in their letters of recommendation at the Dispensary ; or, on neglect, not to be admitted to any future benefit from this charity.
8. That the patients are to furnish themselves with phials, &c. necessary to contain medicines; and that they shall behave themselves decently and soberly, and strictly conform to such rules as shall be given them, or be immediately dismissed.

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Medical

MEDICAL MEMOIRS

OF THE

GENERAL DISPENSARY.

SECT. I.

Observations on fevers, with symptoms
of putrescency.

IN every part of the world, where records of physic have been preserved, putrid fevers, or those attended with symptoms of putrescency, have been distinguished by their violence and
B fatality ;

fatality; as well as by the uniformity of those symptoms they almost universally exhibit.

It is not my design, in this essay, to enter into the distinctions of particular fevers, but principally to record some cases of the putrid kind, which have come under my own observation, without meaning to depreciate the practice or success of other physicians, or to claim more deference to the following method of treatment, than the facts themselves demand.

From some attention to the symptoms of fever in general, I am ready to conclude, that they may properly be referred to three kinds^(a), viz. the inflammatory, the nervous, and the mixed of these two^(b). But
in

(a) Compare that excellent part of Cullen's nosologia, de pyrexia.

(b) Ancient as well as modern physicians seem to have endeavored to multiply names and distinctions of fevers, in consequence of some prevailing symptoms; thus we have the catarrhus, the humoral, the bilious, atrabilious, &c.
and

in practice I conceive it principally necessary to confine our attention to the inflammatory and putrid symptoms, wherein our remedies will particularly be directed to alleviate and stop either the symptoms of inflammation or those of putrescency; thus, although, in the same patient, the former state may first be evident, and the putrescent state succeed, the mode of treatment will be conducted and varied agreeable to the changes in the symptoms. The inflam-

B 2

matory

and the last writer on fevers in this city, has no less than six different fevers, from six different morbid lentors in the blood; but happily for the human constitution, not one of these lentors is proved. Nothing indeed has disgraced physic more, than to see with what duplicity terms are adopted, and causes of diseases described, which were never authorized by fact; this lentor, which has been carefully exhibited in its various metamorphoses, of being too thick or too thin, too hard or too soft, too sour or too salt, too volatile or too fixed, too alkaline or too sulphureous, as causes of different diseases, has never yet been found primarily to exist in any part of the sanguiferous system. Whenever I make use of the term putrid fever, I mean such a fever as is attended with symptoms indicating putrescency, without any regard to its original appearance.

matory fever I shall dismiss, and speak only of the putrid, or that attended with symptoms of putrescency, in whatever state of fever it may occur, or whatever other symptoms may have preceded. I imagine that this fever arises from a determinate specific source, human contagion, a subject already discussed in another publication^(c). Putrid exhalations from the earth have also been supposed to produce the same^(d): thus in *Timon of Athens*,

O blessing-breeding sun, draw from the earth
Rotten humidity: below thy sister's orb
Infect the air!

Shakespeare.

———— The hoary fen
In putrid steams emits the living cloud
Of pestilence.

Thomson's Seasons.

But

(^c) Reflections on the general treatment and cure of fevers, p. 14. Pringle's diseases, p. 1. ch. 7. Sarconi historia rag-gionata degli mali de Napoli, §. 19, 24, 25. Lucretius, lib. vi. &c.

(^d) Ubi cœlum est calidius cum adventitiâ humiditate, Galen de feb. Si aerem calidum & humidum factum hanc febrem progignere, Spigel, tom. ii. p. 15. And again, speaking

But whether these miasmata, a spontaneous putrescency of the bile, or a despondency of the mind (*), and consequent debility,

B 3

speaking of a violent fever in Italy, an. 1621. Et quo magis hæ pluvie perseverabant, eo etiam maligniores hæ febres fiebant. Dr. Alexander, whose experiments led him to imagine that effluvia from marshes, &c. had not a putrid tendency, has been clearly refuted in some recent experiments made by Dr. Priestley, an account of which hath just been laid before the Royal Society. Dr. Home, professor of materia medica at Edinburgh, has informed me, that the marsh effluvia had such an effect upon the army in Germany during the late war, that he could nearly ascertain their vicinity to a marsh from the increase or decrease of fevers amongst them; this is consistent with the experience of Pringle, Lind, Tissot, and that of many other moderns.

(*) Sir Hans Sloane, in his natural history of Jamaica, vol. 1. introduction, p. 31. remarks a considerable difference in the facility of curing the fevers of those who had many occasions of solicitude and concern upon their minds; and of the Indians resident in the same island, who having fewer wants, possessed fewer cares; the diseases of the latter yielding much sooner to the same remedies. "Mens agitât molem," though first mentioned by Virgil, was certainly verified as early as the guilt of Cain, of whom it is said, "he was very wroth, and his countenance fell". Gen. chap.

lity, be equally admissible, are not subjects so generally ascertained, as the uniformity of the symptoms that characterize this fever; the remissions being irregular, and scarcely evident, the heat of the body intense, the headach almost perpetual; the pulse small, frequent and irregular, with the utmost prostration of strength, and despondency of mind, which the author of *The Seasons* pathetically represents in his description of the fever that destroyed such numbers of Admiral Vernon's forces before Carthagena, which I shall here introduce, as equally natural and pathetic.

Sick nature blasting, and to heartless woe,
And feeble desolation, casting down
The towering hopes and all the pride of man,
————— You pitying saw,

To

chap. iv. v. 5. which brings to mind the inimitable lines of Shakespeare.

Canst thou not minister to a mind diseased;
Pluck from the memory a rooted sorrow;
Raze out the written troubles of the brain;
And, with some sweet oblivious antidote,
Cleanse the stuff'd bosom of that perilous stuff,
Which weighs upon the heart? —————

To infant weakness sunk the warrior's arm;

Saw the deep racking pang, the ghastly form,

The lip pale quivering, and the beamless eye,

No more with ardor bright.

Thomson's Seasons, summer, l. 1026.

From the putrid bilious effusions into the stomach arise nausea, bitter taste, and frequent vomiting; the respiration is laborious, and interrupted with deep sighs; the breath is offensive, and likewise the sweat, which is sometimes tinged with blood; the delirium almost constant, the tongue dry and covered, as well as the teeth and lips, with a brown or black tenacious foulness; thrush and ulcerations in the mouth and throat come on, the urine deposits a dark colored sediment, the stools are excessively nauseous, and foetid, and blackish, or bloody; the eyes almost universally seem horny or glassy, and frequently the whites are tinged of a deep blood color; petechiæ, like flea-bites, appear, and sometimes larger exudations of blood or vibices; hæmorrhagy from the

gums, nose, or old ulcers come on, and a fatal hiccup often closes the tragedy.

But this picture, dreadful as it may appear, is much inferior to the description that Lucretius gives of the disease which almost depopulated Athens, in the year 428 before Christ, and at which Hippocrates acquired so much honor (*).

— Fierce unusual heats did seize the head,
The glowing eyes with blood-shot beams look'd red,
Like blazing stars approaching fate foreshow'd,
The mouth and jaws were fill'd with clotted blood,
The throat with ulcers, the tongue cou'd speak no more,
But, overflow'd and drown'd in putrid gore,
Grew useless, rough, and scarce could make a moan,
And scarce enjoy'd the wretched pow'r to groan. (†)
Creach.

If

(†) Thucydides, who also described this plague of Athens, in the time of Pericles, remarks, that the people crowded into the city from the neighbouring places, and thereby increased the violence of the disease, as Creach translates from Lucretius ;

Men flock'd from every part, all places fill'd ;
And, where the croud was great, by heaps the sickness
kill'd.

(‡) Principio caput incensum fervore gerebant,
Et duplicis oculos suffusa luce rubenteis,

Suda-

If the method of treatment, which I shall now briefly relate, be not entitled to much novelty, it hath at least been attended with the most favorable success in numerous cases, which have occurred to me in the space of the last twelve months. I confess, when I first adopted this practice, it was with the utmost caution and diffidence ; I considered of what importance life and health are to individuals and to families, and how careful every conscientious man should be, in recommending any deviation in the healing art, which a few successful instances only could support. In a state of suspense I continued for some time, attentive to the mode of practice and success of other physicians, to whose superior experience I should have relinquished every suggestion of

Sudabant etiam fauces intrinsecus atro,
Sanguine & ulceribus vocis via septa coibat,
Atque animi interpres manabat lingua cruore,
Debilitata malis, motu gravis aspera tactu.

Lucret. lib. vi.

of my own, had I not found that the more implicitly I sacrificed my own judgment, the more unfortunate was the event, in those cases which came under my own observation. A painful sensation was hence excited in my breast at the loss of a patient by the usual routine, when I reflected that another method of treatment might probably have proved successful. By my election to the General Dispensary, a more extensive field of practice afforded me daily opportunities of ascertaining the doubts, and clearing up the difficulties, under which I had labored ; as I found the supine practice I had formerly adopted frequently marked with fatality, while the following spirited interposition was almost uniformly successful, even in cases that exhibited the most dangerous aspect. By these I have learned, that a delirium, dyspnæa, with pulse 130 while distinct, occurring in putrid fevers, are rendered as little tremendous, as the common symptoms of an intermittent, by a method of cure neither tedious nor unpleasant, as the principal remedies I depend

pend upon, besides good liquors, may be reduced to a very narrow compass, namely, peruvian bark and cold air.

The difference in constitution, age, sex, state of the air, manner of living, and such like circumstances, will doubtless require the attention of physicians, and some occasional deviation or addition in the application of remedies, of which they ought to be competent judges; for I consider these reflections as mere outlines, which future observation and experience alone can properly fill up.

I premise already, that the fever is ascertained to be of the putrid kind, without symptoms of inflammation, in which case it may appear necessary to evacuate the putrid or accumulated effusions in the stomach and bowels, probably by an antimonial vomit, which should also be given in such a manner, or with such additions, as may procure as many stools as the patient can easily bear, as well as empty the stomach by vomiting; but where the patient

tient has been previously much weakened, the evacuation is not always necessary or safe, and indeed the bark itself generally proves laxative, either alone, or when joined with a mineral acid.

Immediately after the evacuations we design have been produced, I commence the exhibition of bark, without waiting for remissions or intermissions^(*); a sedulous attention to which, and to crises in fevers, I presume has destroyed more than famine, or Sydenham's cold^(h). A dry dark colored tongue, a dry skin, urine without sediment, desipientia, delirium, dyspnœa, and continued fever, are the circumstances which have

(*) All the writers on putrid fevers, and particularly Clarke, the last upon the subject, remark the risk of waiting for intermissions; and Major Mante, in his history of the late war in North America and the West Indies just published, gives a remarkable proof of the danger of temporizing in these fevers, when the English army was before the Havannah. "A greater number," says he, "fell victims to a putrid fever. From the appearance of perfect health, three or four short hours robbed them of existence."

(h) Vide de febre recurrente.

have deterred physicians from using the bark. — In a word, these are the very reasons for which I would immediately give it⁽ⁱ⁾; it promotes a mild perspiration^(k), produces a sediment in the urine, and diminishes the quickness of the pulse; it removes delirium, by obviating the cause or causes which produce the fever, and effectually relieves the breathing. Such a treatment may probably surprize the reader; but I am earnest in recommending it, because the lives of my fellow creatures are in-

(i) In some instances Sir Robert Talbor gave the bark in fevers, without waiting for an intermission. Vid. the English remedy, or Talbor's wonderful secret, p. 68.

(k) A profuse sweat is mostly prejudicial in putrid fevers; and I have never found any injury arising from taking the patient out of bed in this state in order to check the same, as well as the progress of putrescency: however, when a mild perspiration takes place, without being excited by improper treatment, or a load of bed cloaths, and especially if the symptoms of the fever are moderated by it, the physician cannot use too much caution in stopping this salutary operation of nature. Vid. De Haen, rat. med. par. 14. p. 266. De Perechiis & sudatoria in peste cura, with his authorities.

interested : and when I consider with what supineness these alarming symptoms have in general been treated ; and with what timidity, cordials, as they are termed, or placebos, have been administered ; I cannot but confess, a painful solicitude has been excited for the patient.

Too often the cautious prescriber waits for an intermission, and then ventures to give the bark, when the patient has got well without it ; or while he is employed in watching nature, as it is called, he frequently watches the patient to the grave.— Upon this nullity in practice, the authors of the Monthly Review have justly admitted the following risible, though very applicable critique.

“ The various false theories which have
 “ prevailed in different ages — particularly
 “ the ancient and venerable hypotheses of
 “ crises, concoctions of the humours, and
 “ critical days, have been the principal
 “ causes of this inactivity in the physician ;
 “ which has been so *marked* in this parti-
 “ cular

“cular class of distempers, that an intelligent observer of his conduct, in the conflict between *nature* and the *disease*, would really be led to judge from the tameness of his *manœuvres*, that he only stood to *see fair play* between the combatants; with a fixed resolution not to assist the first, ’till she had fairly got her antagonist *down*, or at an *advantage*.”

I am aware it may be objected, that a patient will not always bear the bark in a putrid fever. — But who ever tried it in vain? I mean not two spoonfuls three times a day of a weak decoction; this is deceiving both physician and patient. — In a fever, with the urgent symptoms of putrefaction, two ounces of bark a day is the least that can be depended upon. My common form, however, is to order three ounces of the powder to be boiled in a quart of water to ten ounces, which is to be run through a coarse cloth, that admits the fine powder of the bark, and this decoction is to be taken in 24 hours. In weak stomachs

stomachs I have remarked, with Dr. Sims, that a strong decoction sits easier with the patient, than the bark in substance, and thereby proves more effectual (¹). In some cases a drachm of elixir of vitriol is added; it is laxative, prevents fermentation, and is probably antiseptic. It should be a general caution, that the patient pay at least a daily tribute ad cloacam (^m); as the first evacuation will not insure us against a fresh though a less effusion of bilious matter.

I cannot dismiss this subject without commenting upon my learned friend Dr. Percival's objection to the bark, the decoction of which, he says, coagulates both fresh and putrid bile; but that decoctions of columbo root, and camomile flowers, sweeten putrid bile, and at the same

(¹) I have known even the decoction disagreeable to the stomach, when the patient has drank, with great refreshment, three pints or two quarts of the cold infusion of bark, in 24 hours.

(^m) By an attention to this circumstance, the swelling of the abdomen, and the difficulty of making water, so much dreaded in these fevers, will be obviated.

same time do not coagulate it.—I have repeated Dr. Percival's experiments, and find that bitter infusions and decoctions in general, as those of bark, camomile, lignum quassia, snake root, &c. sweeten the bile, and that the coagulation of the bile never occurred in the trials I repeatedly made: on the first mixture of the bark decoction with the bile, I admit a separation appears, which arises from the union of the bile with the watery menstruum of the decoction, the solvent thereby separating into flocculæ, which disappear upon the least motion⁽ⁿ⁾.

The second grand remedy I have already

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(ⁿ) I have acquainted this ingenious writer with a minute detail of my experiments, and he candidly assures me that he will repeat them, upon which account I have omitted a more particular relation of them at this time. I would, however, beg leave to remark, that there is very little affinity betwixt a wide mouthed glass vial, and a human stomach; and that experiments made upon ox-gall, have little or no reference to the human bile; vid. Maclurg on the bile; and Percival's experimental essays, vol. 2.

dy mentioned is cold air (°). It is with
me

(°) My friend Francis Pearce, Esq; of Sancta Cruz, not only admits cold air, but cold water; for instead of giving two spoonfuls every three hours of some placebo, he orders the patient to be taken out of bed, and supported till two or three pailfuls of cold water have been thrown upon him, which is repeated every three hours.—This method, he assures me, generally cures a fever in 48 hours, by the success of which, the above gentleman hath acquired considerable reputation abroad: he writes me, that he prefers it to bark as a tonic and antiseptic. Indeed I find my patients at first averse to cold air; a ducking I never attempted; though this is a practice recommended by some ancient and modern writers. Dr. Francklin's air-bath is well known, which my friend Dr. Dubourg, of Paris, has just published, in an elegant French edition of that celebrated philosopher's letters, a copy of which Dr. Dubourg has favored me with. In one of these letters Dr. Francklin introduces an account of his air-bath; "Tous les matins, je me leve de très-bonne heure, & sans prendre sur moi aucune sorte de vêtement, je me tiens assis dans ma chambre une demie-heure, ou une heure, suivant la saison, à lire ou à écrire. Ce n'est point une pratique pénible, elle est au contraire agréable: & si je me remets au lit avant de m'habiller, comme cela m'arrive quelquefois, j'obtiens par manière de supplément à mon repos de la nuit, une ou deux heures de plus doux sommeil qu'il vous soit possible d'imaginer", &c.

Oeuvres de Francklin, t. 11. p. 310.

To this we may add an observation made by Celsus, Ut
ample

me a general injunction to keep the patients out of bed, in the same manner as Baron Dimsdale, and other moderns, recommend in the small-pox; and where it is not convenient to take them out of doors, the windows and doors of the chamber are ordered to be opened throughout the day, and the patient to be exposed to the current of air: the good effects of this *aurora salutifera* are astonishing ^(P). This,

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with

amplo conclavi teneatur æger quo multum & purum aerem trahere possit, neque multis vestimentis strangulandus, sed admodum levibus tantum velandus: lib. III. cap. 7. p. 143.

I would at the same time recommend some caution in the degree of cold admitted, and the length of time it may be applied; for although a proper degree of it prove tonic and antiseptic, yet, when carried to excess, it is highly sedative, as numerous histories testify, and particularly the instance mentioned in Hawkesworth's journal, vol. 2. p. 49. of the celebrated naturalists Drs. Banks and Solander, with their company on Terra del Fuego.

^(P) When it is considered that putrid fevers originate in close unventilated places, the introduction of fresh air seems so natural a remedy, that I have often admired its aid should have been so long neglected.

with the free use of the bark, an attention to the state of the bowels, and some precaution in regimen, will render a putrid, jail, hospital, or camp fever, which are one and the same in event, as familiar and easy to cure as a common intermittent.

At this period of medical knowledge, it is almost unnecessary to remark, that all kind of animal food and broths should be avoided, and farinacea substituted for diet. The common beverage should be lemonade, imperial water, acidulated liquors ^(^q), apple tea, wine and water, and pure wine ^(^r),
par-

^(^q) So early as the 15th century, Wierius recommended acidulated drinks to be taken plentifully in malignant fevers. Vid. oper. p. 919. de curatione febris malignæ. Not only acid drinks, but an electuary, a syrup, and a laxative powder, each acidulated, are advised in such fevers by the same author.

^(^r) The illustrious Baron Van Swieten says, "Mirus inde inest & naturæ humanæ gratissimus, omnia excitans, omnia calefaciens, &c. tom. 11. p. 32. Numerous instances are recorded by authors of individuals, who have been accustomed to the free use of wine and other strong liquors, having wonderfully

particularly claret, of which the patient may be allowed from one pint to three quarts a day. And amongst those who have been accustomed to drink malt liquor, I advise a free use of good small beer, or, if agreeable, as much porter as they can drink, of which I have known patients take a pint at one draught with great refreshment; for I agree with Asclepiades, "*Officium est medici, ut tuto, ut celeriter, ut jucunde curet.*" By cordial draughts of this kind our patients will bear better the open air; and, in the space of 24 hours, will have sense enough to bless the hand that restores them from a load of bed cloaths, from a confined room, and the pains of a sick chamber, in a manner much more agreeable and pleasant than

C 3 what

derfully escaped fevers which have raged with fatality amongst others; one very remarkable I shall mention: when Capt. Cook with Drs. Banks and Solander lay at Batavia, in their return from the South Seas, every person on board were more or less affected with the pestilent climate of that place, except one person, who was regularly drunk every day, during their stay there, vol. 3. p. 723.

what is recommended in the following quotation, which I shall introduce previous to some of the cases which have occurred to me.

“ Burne vvorme vwood to Ashes (says the author) put therto other vvorme vwood & povvre thereon a sharpe lye; extracte thereoute a faulte, & give heerof to the patiente the weight of a drag. Cover him close that he may sweate: Then make a fyre of oaken vwoode, let the Patiente sit agaynste the same, as longe as he can. The Chamber of the Patiente must be verye close, least ther blowe any coulde Ayre therein; neither must he, the space of 8 days, come into the Ayre. If so be then that anye Man desireth to visite the Sicke of this disease, he must take a little tubbe of freshe vvater & sett the same, being very vvarme, before the feet of the Patiente (’).”

C A S E

(’) The Boock of Physicke by Mr. Doctour Oswaldus Gabelhouere, faithfully translatede out of the High Duche by the right Vvorshipfull Mr. Doctour Charles Battus, ordnarye Physitione of the City of Dorte. and now nuelye translatede out of low Duche into Englishe by A. M. p. 293. 1599.

C A S E I.

1773. Jan.

William Sugden, near Spital Square, in the beginning of this year having occasion to visit a miserable crowded workhouse in Spitalfields, was instantly seized with such a nausea and debility, as induced him to confine himself to his chamber as soon as he returned home.

I was sent for to attend him about the latter end of the first week of the fever, when I found him affected with sickness, and great weakness, tongue and teeth furred, desipientia constant, and such other symptoms as made me conclude the case to be a true jail fever, or, what is the same, a true workhouse fever. After an antimonial anodyne emetic, I gave him the common placebos, or cordials, as they are termed; for I did not at that time so generally use bark with the freedom I have since found necessary. He took that most deceitful placebo, neutralized lemon juice;

he took volatile alcali, and sal succini; he took also the celebrated spicy testaceous compound, cordial confection, till I had sufficient reason to dread a fatal catastrophe. — Involuntary dark colored stools, delirium, and prostration of strength, grew daily more and more alarming; and at length, my colleague in consultation consented to try the bark freely, and the liberal use of wine, when the pulse was 150 with subsultus. — I understood that, in health, our patient had been exceedingly abstemious, and scarcely drank a glass of wine through the year, as he had found a single glass sensibly to affect his head; it is remarkable, however, that in this fever, after tasting wine, he scarcely drank any thing else for a day or two, besides his medicines; he would not even suffer it to be diluted with water; and, though he was 40 years of age, he took more wine this week, than he had done for the space of many years before. — The situation where he lived was airy,

airy, he was therefore excused from being carried out of doors; but every day he was taken out of bed, and exposed to a current of air: he took the bark as directed, which, with his copious draughts of red port, and exposure to air, restored him to his family, in tolerable health, in ten days.

Through the course of this fever, I carefully attended to the changes in the urine; but these were so irregular, that I was incapable of forming any conclusions therefrom, unless that these changes are of very little consequence: when we see a dark chocolate colored urine, we then, indeed, reasonably suspect symptoms of putrescency; but the clouds, the sediments, &c. in urine, are exceedingly variable and indeterminate; and I have known the much talked of late-ritious sediment a prelude to death.

C A S E S

CASES II, III, IV, V, VI, VII, VIII.

1773. IX, X, XI and XII.

May 28.

Towards the latter end of May, I was called to visit some families who lived in one house, in a court, in Long-Lane, Aldersgate-Street: a person, released from Newgate, in a malignant, or jail fever, was brought into this house; soon after which fourteen persons, in the same confined court, were attacked with a similar fever. One of them died before I was consulted; one was sent to an hospital; eleven came under my care, and they all recovered by this method of treatment, though some with much difficulty. I also gave here large doses of elixir vitrioli, as my patients were destitute of another antiseptic, wine; however, they substituted good porter. Some women (*) who gave suck, continued to do the same through this fever; which I mention as a proof how little the fluids are primarily affected, as the

(*) I know of no instance recorded by any writer, of the jail fever attacking the fair sex; some of the cases above seem to shew that it is not universally partial to them.

the infants escaped with impunity. —

“ The more we see of the human body
 “ (says Dr. Heberden) the more reason
 “ we find to believe that the seat of dis-
 “ eases is not to be sought for in the blood,
 “ to the sensible qualities of which they
 “ seem to have little relation.”

Having many patients in the succeeding hot months, I could not so minutely collect the circumstances of those I attended in putrid fevers ; but the similarity in most of them, with succeeding cases, will compensate for this defect. I would, however, remark upon the foregoing cases, of what consequence it is to the public, that the miserable objects who are released out of prisons, with their cloaths loaded with contagion, should be prevented from conveying it to other persons : without some precautions no man is secure ; not only the poor, with whom such infected persons associate, are in danger, but those likewise of higher stations, particularly magistrates, who frequently run the risk of catching

a fatal fever. It is not unusual to meet these, our miserable fellow creatures, as soon as they are released from their captivity, begging in the streets for subsistence ; if they are permitted to adopt this practice, no passenger is totally out of danger ; if they are taken up as vagrants and conveyed before a magistrate, he is liable to disqualification from the duties of his office ; if they should not be necessitated to petition for bread in the streets, they convey the mortal poison to the bosoms of their wives ; their associates likewise seldom pass with impunity, and their children, if grown up, are cut down in the prime of life.

It must afford satisfaction to every benevolent individual to find, that the preservation of health engages the legislature to interpose its salutary aid, in order to cut off the very sources of contagion, and thereby effectually to obviate the communication of infection : how far the precautions, about to be adopted by Parliament, may answer these purposes, time will evince.

It

It is happy, indeed, that this contagion does not, in general, extend to any considerable distance, or rise to any great height in the atmosphere, at least to retain its virulence ; and therefore those only that are connected with the sick are the chief sufferers : it appears, indeed, to remain in a concentrated state on the surface of the body retaining it, and on the garments and substances which have been in vicinity to the diseased, in the same manner as odors adhere to bodies in general.

Hence the first means of prevention, which common sense must suggest, will be, to have the old garments of all prisoners who are released from confinement, previously burned, their bodies well washed, and then furnished with clean linen and new suits of cloaths, at the expence of government, or of the parishes to which such objects belong.

The same precautions adopted, before any prisoner be admitted into court, might secure both magistrates and jury from the
danger

danger of infection: but this matter is too copious for discussion here, as well as less necessary, from the attention which the justly celebrated physician, who lately gave such satisfactory information before the House of Commons, has already devoted to the subject; by whose influence, I am informed, it was first brought before the house; and who has since favored the public with the following directions, as a security against receiving infection.

“ Though the legislature seems intent
 “ upon making provision for the security
 “ of the public against the jail distemper,
 “ for which act of humanity and benevo-
 “ lence they merit the grateful acknowledg-
 “ ments of all sensible persons, yet as it must
 “ be a considerable time before any parlia-
 “ mentary regulations can take place, I take
 “ the liberty to suggest the following pre-
 “ servative to the judges, jurymen, coun-
 “ cil, and all others who may have occa-
 “ sion to attend the courts of judicature in
 “ the several circuits.”

“ Where

“ Where there is no experienced inconvenience arising from the use of the bark, this substance may be relied on more securely as a preservative from the jail distemper, than, perhaps, any other medicine yet known.”

“ The method of using it is as follows : let half a drachm, a drachm, or even a drachm and a half, of the fine powder of good Peruvian bark, be taken in the morning fasting, every day before going into court.”

“ It may be mixed in a few spoonfuls of warm milk and water, in simple peppermint water, or warm water with a little brandy added, in wine and water, or even in beer ; and the more cordial and spirituous the liquor it is taken in, consistent with the general way of life of the person who takes it, the better. A drachm of bark in a glass of Madeira, Port, or any strong wine, would be preferable to water only, where no experience lies against its use in this manner. Persons of very irritable
“ table

“table bowels, or subject to difficulty of breathing, or on whom the bark has any unusual effect, will do well to content themselves at first with a smaller dose.”

I doubt not the salutary effects which the use of the bark would produce, with persons thus exposed to the duties of their office. As to myself, every day introduces me into some infected house, but hitherto I have escaped with impunity; which I attribute to my being, in consequence of habit, naturalized to infection. Dr. Priestley found by experiment, that a mouse, which had been previously initiated to breathe in air rendered somewhat impure, was capable of induring highly putrid air much longer than a mouse taken fresh out of vital or common air; and this, I think, applicable the case of physicians who escape infection, to which they are so frequently exposed. Sometimes, indeed, after visiting highly putrid fevers, I have experienced a languor, and other sensations, which have threatened a fever; but a glass of
Hux-

Huxham's tincture of bark (*) has soon dissipated my fears, which I mention in confirmation of the salutary directions I have just quoted.

But jail fevers will never be totally obviated, unless more regard be paid to the vital fluid, air; were the places of confinement well ventilated, and proper attention paid to cleanliness, exercise and diet, this dangerous disease would seldom, or never, be generated. In the airy parts of this city, and in large open streets, fevers of a putrid tendency rarely arise, because a free accession of good air counteracts the principal source from which they proceed, human contagion. In my practice I have

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(*) The following is the form of this grateful preparation of bark :

Peruvian bark, powdered, two ounces.

Orange peel, dried and cut, one ounce and a half.

Virginia snake-root, three drachms.

Saffron, four scruples.

Cochineal, two scruples.

French brandy, twenty ounces.

After the ingredients have been infused a few days in the brandy, it should be filtered through paper for use.

attentively observed, that at least forty eight, out of fifty of these fevers, have existed in narrow courts and alleys; a circumstance which should induce the public to promote every improvement, which tends to the airiness and cleanliness of a great city: from a neglect of these circumstances, the dreadful fever at Naples became so fatal: Sarconi, an able physician who resided upon the spot, remarks, that the disease exerted its greatest influence in the narrow parts of the city, where the miserable peasants crowded from the country; but in Caserta, famous for its winds and its lofty situation, this fever raged with much less violence and rapidity.

When I have reflected upon these circumstances, I have often been surprized at the injudicious fashion, which prevails through all parts of this metropolis, amongst persons of affluence, in chusing a residence in some confined court, without ventilation of air, or the vegetation of even one solitary shrub to purify it when
 stag-

stagnant. No man who regards his health, who can afford to reside in an open airy street, should imprison himself in a confined court; especially where one end is terminated by walls, and the other by a stately gate; as if all the powers of art, and false taste, were united to the destruction of health and vigor^(u).

If we consider the salutary influence which a single plant, in vegetation, produces upon vitiated air, the old custom of decorating a window with a flower pot and a myrtle, or a fragrant balsam, must appear equally rational and salutary, and well worth the attention of those individuals, who prefer the vitiated air of a court, to the fresh breeze of an open street; which the remarks made by the worthy President of the Royal Society, upon Dr. Priestley's ingenious experiments on air, will tend to confirm. "From these discoveries, we are
"assured, that no vegetable grows in vain,

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" but

(u) The present mode, in this city, of making kitchens under ground, is equally insalutary and unphilosophical.

“ but that from the oak of the forest, to
 “ the grass of the field, every individual
 “ plant is serviceable to mankind; if not
 “ always distinguished by some private vir-
 “ tue, yet making a part of the whole
 “ which cleanses and purifies our atmo-
 “ sphere. In this, the fragrant rose, and
 “ deadly nightshade, co-operate: nor is the
 “ herbage, nor the woods that flourish in
 “ the most remote and unpeopled regions,
 “ unprofitable to us, nor we to them; con-
 “ sidering how constantly the winds con-
 “ vey to them our vitiated air, for our re-
 “ lief, and for their nourishment.”

* C A S E XIII.

Sept. 16.

In September I attended a young gentleman in Cornhill, whom I first visited near the commencement of a fever, which from the symptoms at once characterized the putrid kind.

Timidity, and the example of others, induced me to begin with placebos, such as
 the

the *confectio cardiaca*, *contrayerva*, volatile salts, &c. till at length no fair intermission of the fever being likely to succeed, except an eternal one, as the skin grew drier and hotter, the tongue blacker, and no sediment taking place in the urine, necessity and conscience urged me to give the bark, which was thus prescribed :

R pulv. cort. peruv. unciam unam & semis; coq. ex aq. pluvial. libr. dimid. ad lib. unam; colaturæ adde spir. vol. arom. drachmam unam; m. & sumatur quantitas prescripta singulis diebus.

The next day the pulse, which had been 150, fell to 130, the urine deposited a little sediment; the *desipientia*, which had attended him for a week before, gradually subsided; and such a free perspiration ensued, as induced me, in future, to substitute one drachm of elixir of vitriol, for the volatile alkali: after the third day he had no return of fever.

With the bark, he took also a bottle of good old wine every day; and although]

he was not carried out of doors, yet he was kept up throughout most part of the day, and enjoyed a free accession of air.

C A S E XIV.

Oct. 5.

I first saw Francis Collingwood, of Horse-shoe-Passage, Newgate-Street, aged thirteen, who had been ill of a putrid fever about six days, which he caught from visiting a relation; his pulse was 130, he had almost constant delirium and desipientia, but very few petechiæ; for two or three days he had been costive, restless and insomnolent. I ordered the windows and doors to be kept open, to have him taken out of bed, to drink wine, porter, or beer frequently, and to take the following medicines:

R decoct. peruv. unc. unam horis alternis.

R pulv. solutiv. semi-scrupul. hor. somni.

9. I found him much relieved from the fever, and his delirium absent, pulse about 100, petechiæ disappearing; and, in short,

so

so well, that I discontinued my visits; but I saw him a few days afterwards, in the street, in tolerable health.

C A S E XV.

Oct. 9.

At this time his father, aged 47, was seized with a similar kind of fever, but the symptoms were more mixed, and his pulse was more full; he had great restlessness, and delirium almost to raving, with frequent nausea and sickness, and a general rash over his body, but I did not observe petechiæ. I recommended cold air, and the following medicines:

R julep. emet. unc. sex. Mist. anod. unc. duas. m. capiat unc. unam ter die.

Applic. empl. vesicat. brach.

14. The symptoms began to wear the appearance of a putrid fever, the eyes were blood shot and glassy: he now took decoct. peruv. unciam secundis horis; and, as his delirium continued with restlessness, he had also fifteen drops of thebaic tincture every

D 4

night,

night, by which some rest was procured.

R mist. acid. unciam urgente fiti.

This method he continued, till

Oct. 17. when his fever was entirely removed; he slept without the opiate, his senses returned, and I thought it unnecessary to continue my visits. — He attended to his business a few days after.

1773.

Oct. 9.

CASE XVI.

William Hopkins, at No. 36, Beech-Lane,
aged 68.

I first saw this patient about the tenth day of a putrid fever: his pulse was 130; his weakness was so considerable, and his tongue and teeth so furred; that he was incapable of articulating any thing distinctly; he was very deaf, and desipient, or delirious, almost constantly, with a nausea and frequent vomiting; and his eyes were blood-shot and glassy, a symptom pathognomonic of the true putrid fever. I did not expect this worthy old man could survive many hours; he had not slept for
three

three days, his breath was excessively laborious, and his sweat offensive : I felt at the same time much solicitude for his recovery ; he had been industrious, and had contributed to bring up near 100 children, grand-children, and great grand-children.

I gave him unc. ij. of the julep. emet. which produced two or three motions upwards and downwards ; after which he took the following :

R mist. peruv. decoct. peruv. ana p. æ.
sumat unc. duas alternis horis.

R mist. anod. fescunciam hor. somni.

He was ordered to be taken out of bed, and exposed to a current of air, betwixt the door and the window, and to drink a pot of porter, at least, in a day. The thermometer was 58°.

10. He got some sleep last night, his fever was more favorable, and the pulse not above 120. He continued the bark, and porter, and exposure to air.

11. His complaints did not appear worse, nor the pulse quicker, but he had
got

got very little rest. His breathing, however, was tolerably free, and his desipientia nearly removed.

His opiate was repeated, and his bark continued.

12. His fever seemed intirely removed ; and all his other symptoms were so favorable, that I continued the bark as before, and did not see him for about three days afterwards, when, to my surprize, I found him at his business.

During the space of three days, he took the bark in the dose prescribed, every two hours, without any regard to the exacerbation of the fever ; and though the fever never recurred after the third day, he continued that medicine a few days longer, in order to obviate the return of the disease.

I did not observe the appearance of the urine, as it seldom is steady, or regular, or allows any probable prognostic in this species of fever. He never was sensible of sweating during the course of it ; and, in general, I have found that sweating is usually

ally prejudicial, or, at least useless, in this species of fever; a mild perspiration, however, excited by the bark, does not prove injurious, though it is a process I never attempt to promote.

CASE XVII.

Mary Alford, aged 13.

Oct. 15.

Three days afterwards, a grand-daughter of William Hopkins was attacked with the same fever: her pulse was full 130, delirium coming on in the evening, and lasting through the night, with desipientia in the day, and almost constant watchfulness: nausea, and vomiting of bilious matter, were frequent; a rash covered the body, with numerous petechiæ, and she involuntarily passed many very fetid dark colored stools; the eyes appeared blood-shot and glassy. She was ordered,

Applic. emplast. veficat. brach.

R mist. peruv. decoct. peruv. ana p. æ.
capiat unciam unam secundis horis.

R

R. julep. emet. fescunciam statim ; & mist. anod. unciam hora somni : and to be exposed, with the usual quantity of cloaths, to a current of air, and to drink as much porter and small beer as she could ; drinks acidulated with mineral acids were also recommended. The thermometer, in the morning, stood at 50° within doors.

She had slept after her vomit, her stools were less frequent, and of which she gave notice. — She was sensible, drank porter, and beer freely, and occasionally took the mist. acid. with the bark ; pulse 115, and less fever evident.

18. She rested without the opiate, and her fever seemed nearly vanished : she had regular stools, and the bark, beer and air, were still continued. In two days time she was so well as not to require my attendance.

As the patient, at first, appeared in considerable danger, I submitted to the importunities of the family in applying a blister ;

blister ; for, in these fevers, I do not find any evident advantage from the use of vesicatories, neither can I charge them with injury, when so sparingly applied.

C A S E XVIII.

Oct. 23.

William Bailey, aged 38, of Bridgewater-Gardens, son-in-law of William Hopkins, was attacked, four days ago with a fever of the same kind as that of his father, whom he visited during his sickness : with delirium, he had pulse as quick as 130; he was costive, his eyes were red and glassy, and he had numerous petechiæ on the body. I found him sinking, with the greatest debility, under a profuse sweat, and a heap of bed cloaths. I immediately ordered him to drink a pint of porter, which he did with no less pleasure than astonishment; after this he was taken out of bed and dressed, and carried into the open court,

court, called Bridgewater-Gardens: his medicines were,

R pulv. solut. semi-scrupul. statim.

R mist. peruv. Dec. peruv. ana p. æ.
fum. unc. unam fing. horis.

R mist. acid. unc. unam urgente fiti.

24. I heard this day that free draughts of porter, for he had also a pint at night, had put him to sleep; he had a stool or two from the powder, and his sweats had diminished; the bark and acid mixture were continued, and the enjoyment of open air recommended.

26. I saw him this day so well as to order the same process: his fever and heat were scarcely evident; and a few days afterwards, his fever, and consequent headach, delirium, &c. went intirely off, since which I discontinued my visits. On the 30th he told me, he had lately walked to Old Ford and back again, which is eight miles.

I had observed in this, as well as in some other cases, that a mild perspiration was kept

kept up by the bark, with a moist tongue, and body regularly laxative.

C A S E XIX.

John Hopkins, of Maidenhead-Court,
Aldersgate-Street, aged 29.

Oct. 28.

I visited this patient, whom, from attending his father William Hopkins before-mentioned, I found in the same putrid fever, with which he had been seized four days before; with delirium, desipientia, headach, and blood-shot glassy eyes, watchfulness and restlessness, pulse 132, and many petechiæ upon the body: he was in bed, in a considerable sweat, but I ordered him to be taken out of bed, and also to be carried out of doors, which he immediately submitted to; thermometer 57°. His medicines were,

R pulv. eccopr. semi-scrupul. statim.

R mist. peruv. Decoct. peruv. ana p. æ.
cap. unc. unam sing. horis.

R mist. acid. unc. unam urgente siti.

He

He drank likewise freely of porter, and small beer.

Oct. 30. His fever was abated; I met with him down stairs, sitting by the open door, sensible; pulse 100: he was still, however, liable to nausea, and had slept very little. Besides the bark, he was ordered,

R julep. emet. unc. duas statim.

Mist anod. unc. duas hor. somni.

Oct. 31. The emetic operated freely, and it procured also a motion downwards; but he had very little sleep in the night, as he vomited his anodyne soon after taking it.— I visited him early, and he told me he had been walking out before six o'clock this morning, to see his aged father. He had knocked up the family at a public house, and taken his pint of porter; but wherever he went he was treated as a person out of his senses, insomuch that the poor man returned home a convert to the general opinion; he met, however, some comfort by the expressions of an acquaintance, who was present when I visited him.

I wish, said his friend to him, I were sick like you, that *I might drink a pot of porter in a morning.*

I ordered the bark to be continued, and the opiate to be repeated to night. By the method of regimen, &c. above-mentioned, his symptoms seemed to vary from the putrid towards the inflammatory kind, his pulse being only 56.

Nov. 1. Pulse 55. From the opiate he had slept all night, and most of this day; and seemed so free from fever, as induced me to discontinue my visits.

C A S E XX.

Oct. 31.

I visited a daughter of W. Bailey, six years old, who had been attacked, about three days before, with the same species of fever: last night she had violent vomiting and purging, with delirium at short intervals: pulse 120.

℞ pulv. febr. gran. quinque statim.

℞ decoct. peruv. unc. unam, tertiis horis.

E

Nov.

Nov. 7. I called again to inquire after this patient, who, I was informed by her mother, lost her fever the day after I last saw her; since which she had gradually recovered her strength and appetite, and had not taken any medicine for the space of four days. This day, when I called, she was gone to church. She never sweat throughout the whole course of her disease.

CASES XXI, XXII, XXIII, XXIV.

From the intercourse which subsisted between John Hopkins, his grand-daughter Elizabeth Alford, and the parents of the latter, these also were attacked with the same fever, with two of their children; but, by the treatment I have already mentioned, they all recovered. I remember, however, that other two of their children escaped this fever; though the youngest, an infant, sucked her mother during the whole course of the disease; which is one, amongst
many

many instances I have known, that infants have lived with their parents, and even sucked their mothers during these fevers, with impunity, while those advanced in life have severely suffered.

The other child was about eight years old, but had imbibed, from infancy, a peculiar antipathy to cloaths of any kind. In my visits I found this boy totally naked, which probably contributed to save him from infection, as woollen, and all porous bodies, seem adapted to absorb and retain infection, or putrid effluvia, which, by retention and accumulation, may acquire more virulence and activity; this might be one preservative to our Adamite: and it may also be considered, whether the effluvia of perspiration, constantly arising from the whole surface of the body, may not form such an atmosphere around it, as may repel, or neutralize, foreign effluvia, so as to prevent the production of any morbid effect.

C A S E XXV.

Samuel Peters, of Bridgewater-Gardens,
aged 20.
Oct. 16.

I found this patient, six days after the attack of fever, in a state of great debility, with numerous petechiæ, eyes blood-shot and glassy, desipientia almost constant, and pulse 146; his tongue and teeth were covered with a black furr, and the voice was faltering, and incoherent. Under such a state I was sensible of the great danger of the patient, whom I ordered to be taken out of bed, and placed in a fresh current of air, and to drink plentifully of small beer and porter, or wine: as he was costive, I recommended him often to take the *potus tartarizatus*. His medicines were

R pulv. eccoprot. semi-scrup. statim.

R mist. peruv. unc. secunda quaque hora sumend.

19. I found he had slept from this method of procedure, and sweat rather freely

from

from the use of the bark: he had a diarrhæa yesterday, which continues. Other symptoms appeared less alarming, pulse 140.

R julep. e cret. unc. unam, ter die.

R decoct. peruv. unciam, alternis horis.

23. The sweating and purging were soon moderated; the pulse was 104; the petechiæ began to disappear, and the whites of the eyes seemed natural; the tongue was almost clean, and his senses and speech also were restored. The porter was continued; and as he had a troublesome cough, the medicines following were recommended:

R pulv. febrif. semi-scrupul. hor. som.

R decoct. peruv. unc. octo. Sp. vitri. ten. gut. xL. capiat unc. unam, tertiis horis.

R mist. sperm. unc. unam, ter die.

26. Pulse 64. He appeared so well that I discontinued my visits, but ordered the bark and mist. sperm. to be continued, the former at more distant intervals. He soon afterwards waited upon me with gratitude.

C A S E XXVI.

Oct. 19.

Elizabeth Greedy, aged 29, three months with child, sent for me after being confined to her bed about three weeks. I found her in a violent degree of putrid fever; her pulse was 130; her mouth and teeth were excessively furred, her speech was faltering, with considerable dyspnæa, and costiveness, the whites of the eyes were remarkably red: she was in a close confined room, with the bed curtains drawn, a heap of bed cloaths upon her, in as general and profuse a sweat as ever I saw a poor creature; her cough was frequent, with desipientia, and the utmost prostration of strength. I ordered the windows and doors to be thrown open, and the patient to be taken out of bed, and to be supported with wine, porter and beer, but the former was her principal liquor: the medicines were,

R pulv. febrif. semi-scrup. singulis noct.

R mist. sperm. vol. unciam unam, ter die.

Oct. 21. She was not much altered, the

dys-

dyspnæa was still urgent, and the fever almost constant.—She had not been kept out of bed, but was still sweating, desipient, and watching. I persuaded the family to take her out of bed, and into the air; and I now determined to give the bark, without regarding the dyspnæa and cough.

℞ inf. fenn. unciam, tertiis horis donec responderit.

℞ decoct. peruv. unciam, horis alternis.

℞ mist. anod. fescunciam, hor. somni.

Applic. empl. vesicat. brach.

23. I was surprized to find the pulse only 86, the fever abated, and the patient sitting in a current of air: the infusion had procured some stools, the breathing was free, and the sweating considerable, though she was in the cold current of air.

The bark was continued day and night, with the same regimen; and in about three days she appeared to be free from all complaints, but hunger and weakness; and the prudent indulgence of the former vanquished the latter.

CASE XXVII.

Mary Croome, No. 40. London-Wall.

Oct. 23.

This person, aged 40, was very corpulent; her fever, which was characterized by numerous petechiæ, had attacked her about 13 days since; her cough and vomiting were frequent.—She was almost smothered with bed cloaths, and sweated profusely in the same. I advised her getting up and exposure to air; but the friends, who thought themselves more capable of judging what to do, shewed their surprize at such a treatment, and kept her in this confined situation; and as they did not chuse to follow my advice, I ordered only placentos, such as a spermaceti mixture for her cough, and a laxative medicine to relieve her costiveness. She died about five days afterwards; but as she died according to their own way, they were reconciled to it, rather preferring that, than the probable means I had proposed.

CASE

CASE XXVIII.

Oct. 28. Mary Croome, No. 40, London-W.

Her daughter, aged seven, fell ill a few days afterwards. To her I was sent for; and after remonstrating with the family upon the danger of confinement, and the safety of exposure to air, I prevailed upon them, at length, to open the windows and doors, and to expose the patient to a current of air: her pulse was 140, petechiæ numerous, desipientia constant, restlessness and thirst great, with diarrhæa. Besides wine and beer I ordered

℞ decoct. peruv. unc. unam, omni hora.

Nov. 2. She had been exposed to air, and had taken the medicine as recommended, her pulse was 120, with little fever. I ordered the same decoction to be taken every two hours. She was sensible, her tongue moist, and she was apparently recovering : indeed, this day, she attended at the dispensatory, and on the

4. she was so well as to be discharged.

* CASE XXIX.

J. B. in Old Swan-Alley, Thames-
Street.

Oct. 24.

I visited this middle-aged gentleman about the seventh day of a fever, which had been treated with neutral draughts, confectio cardiaca, and such like placebos. The reason of my being consulted, was in consequence of a mortification in the region of the groin. The patient was insomnolent, desipient, and frequently delirious, so that he did not recollect the domestics about him: the pulse was 130, and irregular, and remarkably low; the abdomen tense, and the belly costive. Exposure to the air, in his chamber; the free use of wine, beer, or porter; and the following preparation of bark; were ordered:

R pulv. cort. peruv. fescunciam.

Coque in aqu. pluvial. lib. ij ad unc. x.
cujus capiat uncias duas singulis horis.

As

As he had been costive, I ordered three grains of calomel, in a pill, statim sumend, & hora somni tinct. theb. gut. quindecim.

Oct. 25. The delirium and desipency appeared totally removed, and he had a calm distinct pulse of 110, and moist tongue; the mortification had not increased, but looked more inflamed round the edges, as is usual previous to a separation. A pint of porter being at hand, he drank my health, and near the whole pint at a draught.

The bark was continued, and the same exposure to air; he had a stool from the pill, and the tension of the abdomen was nearly removed.

Oct. 26. The pulse was 86; the mortification appeared to be gradually separating; the patient slept well; and began to feel such an appetite for food, that I attended only the next day again, and found him as fit for viands as medicine.

C A S E

C A S E XXX.

Oct. 26.

A family of six persons, near Christ-Church, Lambeth, were at one time under putrid fevers; I saw them first on the 26th of October.

1. Edward Merebeck, the master of the house, had been confined to his bed about ten days; his pulse was now 130; the tongue and teeth were furred with a dark brown substance, the eyes blood-shot and glassy, and a considerable number of petechiæ appeared on the body; he was frequently desipient, or delirious, and under almost constant restlessness for the last three days, during which period he had been costive; hitherto he had taken saline draughts, mixtures, and other placebos; and he seemed inclinable to sweat.

2. Jane Merebeck, his wife, had complained a few days before her husband: her pulse was 134, with frequent delirium; the petechiæ were extended over the whole
surface

surface of the body, but upon the legs they were larger, like vibices; weakness, and the dark dry furr of the mouth, and upon the teeth, with her debility, smothered her faltering voice; she had been restless, and without any sleep, for many days and nights, and a desipientia was almost constant.

3. Richard Merebeck, 17 years old, son of the former, had been ill about 20 days; he was emaciated and exceedingly weak, but capable of walking over the floor; the pulse did not exceed 120, and he began to take food.

4. Sally Merebeck, a child aged two years and a half, appeared feverish, but without any urgent symptoms.

5. Ann Gardener, aged 20, was evidently recovering from the violence of the fever, and soon recruited her strength, by proper remedies and diet.

6. Elizabeth Howell, aged 14, a domestic in the same family, had been ill about a week, during which time she had menstruated;

frustrated; she was almost constantly desipient, and faltered much in her speech, with symptoms, in general, similar to Edward and Jane Merebeck.

To render these cases more intelligible, I shall speak of the patients distinctly, in the order I have mentioned them. For Edward Merebeck the following was ordered.

R pulv. eccopr. semi-scrupul. hor. somni.

R decoct. peruv. unc. sex. Mist. acid. unc. duas, m. cap. unc. unam alternis horis.

He was taken in the forenoon upon Black-Friars Bridge, where he continued about two hours; and, in the afternoon, he went into George's Fields, without much assistance; although, in the morning, he was incapable of moving about the house, having been for the last week confined to his bed. I have had indeed many occasions of remarking, that persons who have been confined to their beds for many days, in fevers of this kind, sinking under

der a load of bed cloaths, and a profuse sweat, and ineapable, in their own opinion, of even sitting up, on exposure to air, have soon recovered their strength to such a degree, as to walk about the house, and even into the fields, and open courts and squares in the neighbourhood of their residence without help.

I directed him to drink, at least, a pot of porter, or a bottle of wine, every day, and as much good small beer as he pleased.

To the accession of fever I paid no regard, but ordered the bark to be continued without intermission.

Oct. 27. Although he had been so long without rest, yet after the exposure to air, and the use of the beer and the bark, he slept most part of the night; and from the relief already mentioned, he cheerfully submitted to the directions I had given, and the same medicines were repeated.

Oct.

Oct. 28. I was informed that the patient was gone into George's Fields, and that he had rested very little last night. The bark was continued.

R mist. anod. fescunciam hor. somni.

Oct. 29. I was again disappointed of seeing my patient ; who had taken a walk into George's Fields, or upon Black-Friars Bridge.

R mist. peruv. unc. tres sing. horis.

Nov. 3. This day I found my patient at home : he had been delirious and raving all the last night ; he now looked wild and furious, and the symptoms appeared to have undergone a revolution from the putrid to the inflammatory. This circumstance at first used to alarm me, lest a determination to the head should have taken place previous to death ; but as I have always found it a prelude to recovery, I have learned to consider it as a pleasing omen ; especially when the pulse becomes slower, which it sometimes does below the natural standard, an observation
which

which Dr. Sims has also made ; the pulse of the patient was only 92, though the exacerbation of the fever seemed augmented in degree of violence : from such a picture, I imagine, Shakespeare drew the following copy :

Before the curing of a strong disease,
Ev'n in the instant of repair and health,
The fit is strongest. —

The same regimen was ordered to be continued, but of the bark mixture only one ounce every hour was now recommended.

R mist. anod. fescunciam hor. fom.

31. He was frequently delirious, but the petechiæ were almost vanished, and the pulse was about 92 only. He had slept well from the opiate, and knew those about him : he still passed his urine without notice, but not his stools.

Repet. medicament.

Nov. 1. He was gone into George's Fields, so that I did not see him ; but I heard that he had slept well, and seemed almost void of

F

any

any complaint, but weakness : he had three stools since yesterday, and now gave notice of making water.

Nov. 2. The pulse was at 68, no complaint was made by the patient, who slept well, and had an appetite for food ; since my first visit he had never sweated.

C A S E XXXI.

Jane Merebeck.

Jane Merebeck took, October 26,

R pulv. eccop. grana v. hor. fom.

R decoct. peruv. unc. unam secundis hor.

This debilitated patient, who had been confined to her bed ten days, with restlessness and numerous petechiæ and vibices, was now drawn out of her confinement, by my direction, and carried by two persons upon Black-Friars Bridge, in company with her husband.

Oct. 28. She had slept a little after the exposure to air on the 26th ; to-day I found her sitting in a strong current of air,
between

between the window and the door, in a shift and petticoat, with her breasts exposed ; in which situation she had continued almost the whole day, as she expressed a most grateful sensation from the cold air : but, by this long exposure, she had such a stiffness and rigidity through all the joints, and particularly in the neck, that she was as incapable of moving as if she had been seized with a general rheumatism. I was the less alarmed by the variation in the symptoms, as I imagined, at this period of fever, that those of putrescency were only to be feared ; but I must admit, that the too long exposure to cold air might have been productive of a dangerous sedative effect ; nor was it my design, that the patient should have undergone so considerable and permanent a degree of cold ; the wind blowing fresh from the Thames, at a time when a thermometer in the city, within doors, fell as low as 56° . Her pulse was regular, and not exceeding 120, but she passed stools and

urine without notice ; both of which were very offensive and deep colored, and a diarrhæa also attended the patient.

I ordered her to be taken to bed, and warm bricks to be applied to the feet, as they felt very cold. She had been restless last night : the medicines prescribed were,

℞ mist. anod. fescunciam hor. som.

Applicet. linim. volat. collo bis die.

Repet. decoct. peruv. ut antea.

Oct. 29. She slept well last night, the rigidity in general was abated, and the involuntary stools were less frequent ; the pulse was only 90, and stronger, which I attributed to the late exposure to cold : from this change in the symptoms towards the inflammatory state, I had very little doubt, bad as this poor creature was, but the event would prove favorable. The petechiæ had not increased since the first exposure to air, and the color of them was not very dark. She took porter now and then, and, about every two hours at least, a glass of
good

good wine, unmixed. The bark was increased, and she now took,

R mist. peruv. unc. tres sing. horis.

This quantity I was encouraged to give at this period of fever, from my friend Dr. Sims's recommendation, who frequently accompanied me to see this family; and Dr. Rogers likewise visited with me, whose curiosity was excited to attend to the success of the plan of treatment here adopted, and who was also fully satisfied, that its success could not be more demonstratively ascertained, than in the instances before us. The windows and door of her chamber were still kept open.

Oct. 30. The pulse to-day was 84, and stronger; the rigidity of the joints and neck was very little abated; she dosed much with the eyes half closed, and had passed five involuntary dark colored stools to-day; the desipientia had continued from the first. The same regimen was repeated; but as the purging was probably occasioned by the bark, only one ounce of it was or-

F 3 dered

dered every hour : I do not, however, in general find, that a moderate diarrhæa, excited by the bark, proves injurious, but rather beneficial. She has had no fever for twelve hours.

Oct. 31. The pulse, though distinct, was less strong, and at 96 ; the tongue was dark colored, dry, and divided into fissures, like the bark of a tree ; the patient frequently screamed out, as if in the greatest agony, but complained of pain towards the bottom of the back only : at intervals she appeared sensible, though she passed two stools last night, and her urine, without notice ; the petechiæ were scarcely to be seen, and no fever was perceptible.

Repet.

Nov. 1. The pulse was only 88, and the rigidity of the joints considerably abated ; but she still slept with half closed eyes, and passed urine without notice : she has not had a stool since yesterday.

Repet.

Nov. 3. I was informed that she appeared

peared better yesterday, after passing a good night, and recollected those about her; but she had a stool without giving notice of it. Last night, although she took 3iss of the mist. anod. she was delirious and raving without intermission; but this morning I found her asleep, and the pulse only 76, which is probably below the natural standard; it was also soft, distinct, and more full.

Repet.

Nov. 5. The pulse was now 100; she continued to make urine involuntarily, but had had no stool since the third instant. The tongue was moist, and she seemed sensible and recollected: upon examining the pained part she had so long complained of, about the region of the os coccygis, there appeared a mortification of about four inches diameter.

R pulv. eccopr. semi-scrup. statim.

R mist. peruv. unc. unam secundis horis.

And the same peruvian mixture made

F 4

warm,

warm, was ordered to be applied frequently to the mortified part.

Nov. 6. The pulse was again 84, and she slept well last night after taking 3iſs of the miſt. anod. the edges of the mortification were ſeparating.

Nov. 8. The pulse was 72; the patient was deſirous of food, and the mortified part appeared to be ſeparating freely; ſhe was perfectly ſenſible, and had regular ſtools, of which notice was given. A few days afterwards, when the mortification ſuffered her to move abroad, ſhe came to ſee me, and looked better than before her illneſs. She never ſweated during my attendance, which I do not attempt to excite in putrid fevers, as it appears to me, in general, rather to weaken the patient, and augment the putreſcent ſymptoms; though Huxham on putrid malignant fevers, had very different ideas; “ I ſolemnly aſſert, ſays he, I never ſaw
“ one of theſe fevers completely judged or
“ carried

“carried off, till more or less of a sweat
“issued.” (*)

If an intermission had been waited for
before the bark had been given, would not
the patient have died?

C A S E XXXII.

Sally Merebeck.

Nov. 1.

Sally Merebeck, a child of two years
and an half old, was this day taken very
bad of the same fever with her parents,
and many petechial spots were visible: she
has had regular stools lately, and from
taking some rhubarb powders, voided a
few days ago, three worms, each 12 inches
long, which probably came away in con-
sequence of the contents of the bowels
being vitiated. The child's pulse was
136; and she had a very constant cough.

R mist. anod. drach. duas hor. som.

(*) Chap. viii. p. 116. and Mead de imp. fol. observes,
perfectissima fit sudoribus febris soluta.

R decoct. peruv. drachm. duas altern.
hor.

Nov. 4. The cough continued, and she had been almost perpetually reaching and vomiting bilious offensive matter for the last six hours; the labia pudendi were found to be very dark colored, and the mortification seemed extending into the vagina; this was ordered to be frequently fomented with the bark decoction made warm, and three tea spoonfuls, at least, of the same to be given to the child every hour or oftner, whether the vomiting continued or not; pulse 140.

Nov. 6. The pulse was 120; the vomiting abated soon after taking the bark freely; the pudendum was greatly inflamed, and the mortification appeared disposed to separate.

Repet.

Nov. 7. The pulse was 136; she took little food, but continued the bark, and had two or three offensive stools; the labia pudendi were sloughing off, and a dismal chasm

chasm appeared. It had been neglected to take the child out of doors since her indisposition, though she had been placed in a current of air now and then.

Nov. 8. She continued to recover, had been taken into the air upon Black-friars Bridge to-day; and the pulse afterwards was only 112.

Repet.

The child was some days following brought to my house in good health.

C A S E XXXIII.

Elizabeth Howell.

This patient was ordered to take,
 ℞ pulv. solut. femi-scrupul. hor. som.
 ℞ decoct. peruv. unc. unam secundis horis;
 and to be carried into the open air, and to use the regimen already recommended.

Oct. 27. She slept well after visiting Black-Friars Bridge yesterday forenoon, and George's Fields in the afternoon: the solutive powder procured some stools.

Repet. decoct. cortic. peruv.

Oct.

Oct. 29. She had frequent and violent rigors, and felt sensibly cold to the touch; the mouth was very dry and furred, the pulse did not exceed 120.

Repet.

Oct. 30. The pulse continued about 120; the petechiæ were not increased; the tongue was more moist, and, with the rigors which continued, she was very desipient and inclined to a heavy kind of sleep.

Repet.

Oct. 31. The desipiency was increased, and she was frequently delirious and incoherent in speech; she had passed four dark colored offensive stools, of which she gave notice, the pulse at present beat 132. The fever was violent, and the breathing laborious.

Repet.

Nov. 1. She slept well last night, the fever was almost totally removed, and the pulse only 120. I found her sitting in the air by the street door, with a moist tongue;

tongue ; the rigors had not recurred since yesterday.

Nov. 2. The pulse was 100; she slept well and took food, and I therefore considered it unnecessary to see her again: during the whole course of the fever she never sweated, but seemed most generally chilly and cold.

The glassiness of the eyes, which is so pathognomonic a symptom in putrid fevers, mostly continues full as long as the fever continues to recur; when the glassiness goes off, it indicates in general a removal of the febrile and putrescent symptoms.

C A S E XXXIV.

During my attendance upon the preceding family, I also visited a young woman near Moorfields, with symptoms not less violent and alarming than theirs. In her delirium, which lasted for some days, with intermissions of stupor, she made frequent attempts to destroy herself

self with knives, pins, or whatever instruments of danger fell in her way: the petechiæ extended almost over the whole surface of the body; the stools and the urine were passed without notice; the pulse was frequently at 150 with subsultus; and every other appearance in the eyes, tongue, and breathing, which indicate a bad event. I gave her, at one of my visits, about eight ounces of the following bark mixture at one draught; which, during my stay by the patient, so revived and refreshed the dying spirits, that I ventured to order the same dose of the bark to be given every two hours, till the next day.

R mist. peruv. decoct. peruv. ana p. æ.
cap. uncias octo tertiis horis.

Before this period, I had ordered much smaller doses; but, the succeeding day, I found her sensible and every way better, which induced me to lessen the dose considerably, as she had now a slight diarrhæa. From this time nothing very peculiar

culiar took place; she gradually recovered, and now enjoys good health.

The child, to which she gave suck through some part of the fever, escaped with impunity; her milk during the progress of the disease abated, and at length totally stopped.

C A S E XXXV.

Samuel Millar, Baptist-Head-Court, White Cross-Street, aged 46.

Oct. 29.

I found this patient in a close confined room, in so profuse a sweat, as rendered the bed-cloths as wet as if they had just been washed, and they emitted also a stench, that was offensive before I entered the room: this fever he had laboured under about 14 days; the pulse was 130; desipientia was present, and a considerable number of petechiæ appeared; he had been some time under a diarrhæa, which with his sweat had reduced him very low. I opened immediately the windows and door
of

of his chamber, saw him take a pint of porter, and ordered him to have a dry shirt, and to be carried into Moorfields, and another pint of porter to be given him on his return.

R mist. peruv. unc. duas om. hor.

Oct. 30. All his complaints I heard were better, his porter and bark had procured him sleep, and therefore I ordered both to be continued. He also implicitly submitted to be taken into Moorfields, although he had been confined to his bed for ten days preceding.

Nov. 2. His pulse was 80, without any fever, he slept well and craved for victuals. — I now discontinued my visits.

C A S E XXXVI.

Elizabeth Spurling, Well-Street, Jewin-Street, aged 36.

Oct. 30.

This patient had not menstruated for some months previous to, nor during her present fever, which she had labored under a week. She had been attended,
and

and was recommended to me by my ingenious friend T. Lane^(*), who is as well known amongst philosophers as physicians. The pulse varied from 130 to 140, and was sinking with subfultus : she had not had a stool for two days ; a vomiting was frequent, with difficult respiration ; the stools were involuntary ; an universal rash, with numerous petechiæ, covered the body ; her habit was corpulent ; the debility was reduced to the lowest ebb ; her eyes were glassy and very blood-shot. She had a craving for porter, but refused wine, and had not slept for some days. A pot of porter was ordered to be drank every day, and she to be moved out of bed into the air. The family, as there was reason for their fears, expected death ; and I imagined myself that four and twenty hours would decide her fate. Her medicines were,

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(*) This gentleman hath since undergone a dangerous fever, which attacked him soon after he had visited a person in Newgate ; and from which, by exposure to air, and daily conveyance out of town, with the other remedies I have recommended, he happily recovered.

R decoct. peruv. mist. peruv. ana p. æ.
capiat unc. duas omn. hora.

R mist. anod. fescunciam hor. som.

Applic. empl. vesicat. brach.

R pulv. eccop. semi-scrupul. statim.

Injic. enem. solut. statim.

Oct. 31. She had a stool from the pulv. eccoprot. and other medicines, without the clyster. I generally find that the bark and the mist. acid. prove laxative, and promote a mild perspiration; in the present case I found the patient sweating in bed; but the family did not take her out of doors yesterday as ordered, though she was taken out of bed, and the window and door were set open. She dosed all last night, after drinking the porter; her pulse this morning was 146; the respiration laborious and short; and the petechiæ were still numerous. The blister had discharged, the tongue was dry and as dark as foot, the whites of the eyes were red as blood, and desipientia, or delirium, was constant. I informed the family, that her life depended upon being
car-

carried into the open air, and they promised to submit to a direction which to them appeared astonishing; the bark and mist. acid. were continued, and a pint of porter ordered to be given three times a day.

Nov. 1. Her pulse was 110; she had been up all day, and was taken out of doors into the air; the petechiæ were now scarcely evident, but the tongue was dry; she had a stool, of which she gave notice; the eyes still continued glassy; she was insensible and desipient, and had little or no sleep last night; but her breathing was much freer. She took her medicines and porter, which were ordered to be continued with exposure to air, and, at bed time,

R mist. anod. unciam & semis.

Nov. 3. I saw this patient to-day, in company with my friend T. Lane: her pulse was 100; she was sensible, and capable of walking abroad; she continued the porter, bark, and exposure to air. Yesterday noon, after drinking a pint of por-

ter, which was her usual dose, she fell asleep in her chair, and did not wake for some hours. — The tongue was moist, no petechiæ were evident; and, in short, she found herself so well as to dispense with my future attendance.

Towards the conclusion of her fever she conversed with me sensibly; but about a fortnight after I had last seen her, she paid me a visit, and remarked, that she had no recollection of having seen me during any part of her illness: such a circumstance has often occurred to me in fevers of this kind.

C A S E XXXVII.

Nov. 2.

I visited John Butler, at N^o 2. in Butler's-Alley, Little Moorfields, aged 35, who had been ill in a putrid fever nine days. The fever was now almost constant, the pulse was 120; the breath was laborious; he was costive, and had not slept for some days and nights; his eyes were glassy and blood-shot,

shot, but it was only at intervals ; no petechiæ appeared ; the tongue was dry and furred : he had been confined during his illness to his bed ; but he was ordered to be got up, and to be carried into Moorfields.

R pulv. solut. semi-scrupul. statim.

R mist. peruv. decoct. peruv. ana p. æ.
unc. duas fing. horis.

R mist. anod. fescunciam hor. som.

Bibat pot. tartarizat. ad libit.

When I mentioned that he might drink porter, he seemed transported with joy, as he said he had long wished for it, but had been deterred from apprehensions of its danger.

Nov. 6. I heard this day that the fever had vanished, and that the patient was now capable of going into Moorfields without assistance: no delirium or desipientia was present ; on the contrary, he slept well. I did not repeat my visit: he was ordered the solutive powder occasionally, and the bark only three times a day ; but he had persevered in the method first pre-

scribed till to-day. His sight had been so confused during his fever, that he was incapable of distinguishing objects, but this complaint had now ceased. He called upon me a few days afterwards in health.

C A S E XXXVIII.

Nov. 2.

I found his wife Elizabeth, aged 34, in the same sick bed: her pulse was 122; she was costive, and desipient; but dosed at intervals with her eyes half closed, which were glassy.—She had not menstruated for some years; she had a leucophlegmatic habit, had lately had symptoms of dropsy, and now made little water; the fever had been almost constantly upon her, as long as that of her husband. The same exposure to air was ordered, and also the use of wine, with

R pulv. solut. semi-scrupulum.

R mist. peruv. decoct. peruv. ana p. æ.
capit unc. duas om. hor.

Bibat. pot. tartarizat. ad libit.

Nov. 6. Though she still continued very
weak,

weak, her fever was entirely removed; she began to eat with appetite, was sensible, and her eyes, as I understood, (for I only paid one visit) appeared natural; her legs swelled towards evening.

Repet. pulv. solut.

Repet. mist. peruv. ter die.

A few days afterwards she paid me a visit, in better health than she had been for some months before.

C A S E XXXIX.

Nov. 3.

I first visited Christiana Davis, of Wither's Court, White-Cross-Street: the pulse was 138; she had been in a fever about five days; the thirst was great, and the tongue furred; she had been frequently delirious; coughed almost incessantly; the petechiæ were very numerous, particularly on the breast and arms; the whites of her eyes were very red, blood-shot and glassy; the fever had slight remissions; she was rather costive, but she had passed her stools without giving notice; she never

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sweated;

sweated ; and she slept little. She had not been accustomed to drink beer ; but upon the mentioning of it, and the porter, she expressed much pleasure ; in health her common drink had been water : she menstruated at the commencement of her fever, and had also a diarrhea.

R pulv. eccoprot. semi-scrupul. statim.

R mist. anodyn. fescunciam hor. somni.

R decoct. peruv. mist. peruv. ana p. æ. capiat unc. duas omni hora.

I also ordered exposure to the open air.

Nov. 6. This day I again saw her, after having taken bark, as directed, to this present time ; the pulse was 120. Her fever was absent, and had been for two days, but she was excessively weak, though sensible to know those about her ; this, however, was the first day she gave notice of stools, and she had one at least every day : the petechiæ were less numerous ; the tongue continued dry and chapped ; the eyes were less blood-shot ; her cough was still troublesome ; with exposure to air, the use of
porter

porter was continued, and of this liquor she drank three pints a day, besides some wine.

R decoct. peruv. unciam ter die.

R mist. sperm. volat. unciam urgent. tussi.

She complained much of the taste of the bark, which is a favorable sign.

Nov. 8. Pulse 104: she had several stools; the cough was better; she took porter copiously, and thought herself so well, as to request an absolution from bark. The visits were discontinued.

C A S E XL.

Sarah Snaith, aged 38. of Old White Horse Yard, Chiswell-Street.

Nov. 4.

This patient, when I first saw her, had been a day or two in a fever, with such lowness, debility, frequency of the pulse, and efflorescence and marbling of the skin, as denoted the putrid kind. She had been costive, delirious, and disturbed in sleep, the breathing was laborious, and

and the pulse 130; the tongue was dry, but not much furred; and the whites of the eyes were red.

℞ pulv. eccoprotic. semi-scrupulum pro re nata.

℞ julep. emetic. unc. duas statim.

℞ mist. peruv. decoct. peruv. ana part. æ. capiat unc. duas secundis horis.

She had given suck, but left off to-day, as the milk had abated. She was ordered a free accession of air, and to drink malt-liquor or wine.

Nov. 6. The pulse was 120 and very low; there appeared a rash on her breast; and she had a diarrhæa since my first visit, which was now abated; she slept little, but scarcely any fever was evident; the beer and porter were vomited, but the wine was retained, and also the bark, which she had continued to take as directed.

To be repeated every three hours.

℞ mistur. anodyn. fescunciam hor. somni.

She disliked getting up, but allowed the doors and windows to be opened.

Nov.

Nov. 8. The pulse was 108; no feverish heat was evident; she was desipient but not delirious, unless towards evening; she slept well the two last nights, but could not be prevailed upon to be carried into the air, though the room windows were kept open in the day; the tongue was dry and the teeth furred; she has not had a stool since Nov. the 6th.

Repeated the bark every two hours.

Nov. 10. The pulse was fallen to 80. She slept frequently without any return of fever, she appeared sensible, and had a stool; the tongue was moist, and other circumstances were so favorable, as induced me to discontinue my visits, after ordering a repetition of the bark.

Some days afterwards she attended at the Dispensary.

* C A S E XLI.

Thomas Clemison, aged 10 Years, in
Round-Court, St. Martin's-Le-Grand.

Nov. 10.

When I first saw this boy, his fever had subsisted about a week; his pulse was remarkably quick, and the redness of his eyes, and other symptoms of putrescency, were considerable; but his fever had remissions in degree of violence. The apothecary, the preceding evening, had given him an emetic, without a mitigation of fever succeeding; I therefore ordered the following,

R pulv. cort. peruv. uncias duas & semis, aq. pur. lib. duas cum semisse, coq. ad semi-libram, cola, & hujus decoct. cap. coch. comm. omni hora durante pyrexia.

R spir. vitr. ten. gut. l,
aq. puræ unc. octo,
syr. simpl. drachmam,
spir. lavend. c. drachmam dimidiam,
m.

m. capiat coch. dua secundis horis durante
apyrexia.

By this mode of giving bark during the exacerbation, and the agreeable placebo above in the remissions, the fever soon entirely abated; for on the third day of my calling, the patient was so well as not to require my future attendance. Dr. Sims, to whom I mentioned this case, assured me that it had been his practice for some years; and that he found half the quantity of bark requisite to cure a putrid, or low remittent fever, when given in the remissions, would suffice if taken only during the hot fit, or exacerbation. Although my experience has convinced me of the truth of this judicious observation, yet I have been so much afraid to leave off the use of the bark too early, that I have usually continued it for two or three days successively, before I ventured to remit its exhibition. I am at the same time suspicious, with my ingenious friend, that by admit-

admitting some little respite in throwing in this remedy, it may exert a more powerful febrifuge effect, on the succeeding exhibition of it, as I think I have frequently had occasion to remark: but this should be a universal maxim, never to quit the bark till an intermission, or fair remission of the fever appears.

Respecting this patient I would further remark, that he was daily taken into the court, and every temptation thrown into his way to induce him to play; and on the third day of my attendance, I found him able to whip his top.

C A S E XLII.

Sarah Glover, of Playhouse-Yard, White-Cross-Street.

Having attended a relation in a fever, she was soon after attacked with symptoms of the same. She had been ill about four days when I first saw her: she complained much of head-ach, shooting pains about the breast, violent cough, general fore-

foreness, a nausea and sickness; she was brought to bed about three months before this attack, and now gave suck; the body was covered with an efflorescence and universal rash like the measles, a disease she had formerly passed through; her sleep was little and disturbed. Though I imagined this fever might assume the putrid form, yet the symptoms at present appeared so much of a mixed kind, with a pulse not exceeding 110, cough and flying pains, that I was deterred from immediately giving the bark.

Dec. 7. R pulv. febrif. semi-scrupulum
hac nocte.

R mist. sperm. uncias octo; elix. sudor.
semi-drachmam, m. capiat unciam ter die.

9. I heard that the pulvis febrifugus had vomited freely, and given two motions from the bowels; that she had slept better, though the febrile complaints still continued.

11. I saw the patient, and examined the eruption with a glass, but no petechiæ

chiæ were evident ; the tongue was more furred, but the eyes did not seem blood-shot ; the pulse, however, had increased to 120 ; she began to sweat without mitigating the fever ; and she had been costive two days.

R pulv. solut. semi-scrupulum statim.

Repet. mist. sperm.

R julep. emet. mist. anod. ana p. æ.
hor. som. fum.

13. I learnt that she had passed stools, without any relief ; the draught she took neither procured rest, nor vomited, but the perspiration continued.

Dec. 14. I saw this patient again, and was much alarmed by the progress of the symptoms to the putrescent kind ; the whites of the eyes were remarkably red, the pulse was at least 140 with subsultus, and almost too weak to be felt, although it had hitherto been rather full ; the breathing was laborious, and the delirium nearly constant ; the petechiæ were scattered over the body amongst the other eruptions,
which

which was changed to a deeper color; constant restlessness contributed to weaken the patient, and aggravate the symptoms; the urine let fall a deep chocolate colored sediment, which was also offensive in smell: the two stools she had last night were remarkably dark colored and fetid; the cough, which had hitherto deterred me from giving the bark, still continued, with slight pains about the breast. I have frequently had occasion to observe a cough accompanying putrid fevers; and, I am persuaded, it should be an indication to give the bark, when other symptoms also point it out. Though she had continued to give suck, the child remained well; but the milk abated to-day. I ordered the patient, who was now in bed, to be taken to an open window, and to drink a pint of porter three times a day.

℞ mist. peruv. decoct. peruv. ana p. æ.
capiat unciam singulis horis.

Applic. empl. vesicat. brach.

℞ mist. anod. unciam hor. somni.

15. I heard this day that the patient, so far as her friends could determine, continued full as well, but slept ill. The bark had vomited, and given two stools soon after taking it; but, in the succeeding doses, it had produced no disturbance: her senses, I was informed, seemed more composed; and she had been taken out of bed, and had drank a pint of porter three times a day, besides several glasses of wine.

The same continued.

16. This day I visited her, and found she had passed five or six laxative stools, very fetid and dark colored; the urine was clouded, but no sediment appeared. —She was, however, sensibly better; the pulse was as low as 120, and distinct; the head clear, and the fever intirely absent, with a little moisture on the skin; she was sitting near the open window, and expressed much pleasure from feeling the current of air. As she had slept very little, and several stools had been procured, ten drops of tinctura thebaica were added to the bark

mix-

mixture, which she continued to take as often as before. — The porter and wine were still recommended, as well as exposure to air.

17. She appeared upon the recovery, had slept well, and the diarrhæa was abated. I took my leave of the family, as the danger seemed over; but she continued to take the following for a few days:

R decoct. peruv. unciam tertiis horis.

C A S E XLIII.

Ann Mofs, of Bunhill Row, aged 30.

This person, after attending a relation that died of a putrid fever, was attacked herself with the same disease, and with symptoms that indicated considerable danger: the eyes were remarkably blood-shot, the tongue was furred, and the pulse about 140; the skin was marbled, and a general deep colored eruption covered the body.

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Dec.

Dec. 18.

R pulv. febrif. semi-scrupul. hor. somni.

R decoct. peruv. unciam ter die.

The powder vomited and purged freely; but the febrile symptoms still persisted, with increased desipientia, or delirium, and great watchfulness and restlessness. The friends being anxious for a blister, one was applied between the shoulders.

Dec. 20. The patient had a stool every day, which was very offensive; the urine was chocolate colored, and, upon examining the eruption, many petechiæ were evident, particularly on the arms, breast and face. The patient, though advised to be got up and carried into the air, refused to submit, as well as to take wine or beer. The pulse was irregular with subsultus.

R decoct. peruv. unciam unam, tertiis horis.

Oct. 21. Her cheeks and nose were turned of a dark color, a mortification of those parts having made considerable progress, and the symptoms of debility were greatly

in-

increased; the petechial spots on the body were become very dark colored, and the tongue was covered with a darker fur; the last stool was very offensive, but she gave notice of it. The patient had scarcely any rest; the pulse was irregular, sometimes beating excessively quick for three or four pulsations, after which, for a stroke or two, there was an interval of five seconds; I had observed it sometimes so in the former visit, but the subsultus then present rendered it more confused. The friends about her refused to take her out of bed, but wine was drank more freely, and the bark in larger doses.

R mist. peruv. decoct. per. ana p. æ.
capiat fescunciam secundis horis.

R elix. sudor. drachmam hor. somni.

Oct. 23. Though the dose of bark was increased, yet the patient had refused to take it, as well as wine. I found her this evening extremely weak, and nearly speechless, though sensible; the mortification had not increased, but death was

evidently approaching. The court or alley where she resided, is one of the most confined and dirty that can be imagined; and, in spite of all my intreaties, she had been denied accession of air, had taken but little bark, and scarcely any wine or beer. So far as I can calculate, the accession of air is of as much consequence to the patient, as bark or diet; nay I should presume, that a putrid fever might be sooner cured by the free admission of air without bark, than by bark without air. (v)

I have frequently remarked, that my patients have recovered much sooner when they had been taken out of their beds and houses, and carried into the neighbouring fields and gardens; but why this exposure should prove more beneficial than a current

(v) It must be agreeable to such as are liable, from the increasing price of bark, to anticipate the evils which the want of it might occasion, to find that air, as a febrifuge, a tonic, and an antiseptic, is full as powerful as the bark; it is a remedy that can never be circumscribed, in a free country, by the caprice of princes, or by monopoly in commerce.

of

of air in the sick room, I cannot satisfactorily explain : but may not the effluvia from the diseased body, retained in the cloaths, be more effectually ventilated in this case ? may not the growing vegetables, or the evaporation of water in the atmosphere, agreeably to Dr. Priestley's experiments ⁽²⁾, obviate the putrid tendency in the system ?

However this change may be produced, the fact is amazing : I have known patients, who could not be persuaded that it was possible for them to get out of bed, through weakness, upon being carried out of doors, and kept in the air an hour or two, to have been capable of walking home, and of helping themselves afterwards ; a few instances of which have lately come under my observation.

(2) See philosophical transactions for the last year, and a distinct treatise on different kinds of air, by the same ingenious philosopher ; also an elegant oration delivered by the president of the Royal Society on the same subject.

CASES XLIV, XLV, XLVI, XLVII.

John Bosworth, in Gloucester - Court, White-Cross-Street, with his wife and two children, were in a very helpless situation, from the attack of a putrid fever, when I first visited them, Dec. 18. Almost by force they were dragged from their miserable beds, and taken into Moorfields; and what surprized me much, on the 21st they attended the Dispensary in person, though they were so altered for the better, that I did not recollect them.

I have known many other patients, who have been confined to their beds eight, ten, or twelve days, previous to my attendance, whence, at the best, a long lingering recovery could only be expected, but from the mode of cure I have recommended, they have entered upon their respective occupations in five or six days, little emaciated or changed by so shocking a disease; an event, which though difficult

to

to account for, has always afforded me much pleasure.

The limits I meant to prescribe to this publication, will not permit me to insert every instance of success from the foregoing practice; and it is less necessary, from the similarity in the symptoms of putrescency subsequent in the fevers I have already described: but, on the other hand, I apprehend, every unfortunate case should be related with impartiality and minuteness, that such circumstances as appear to have augmented the danger, or produced the fatality, may be obviated in future; by which new improvements in the art of healing may be suggested, and the interests of medicine and of mankind, which are synonymous, thereby promoted. From these considerations, I was induced to relate the twenty-seventh and forty-ninth cases, those being the only inauspicious events of the kind; since which two others, that happened in Woodstreet Compter, have fallen to my lot, and with them, and two cases since

com-

communicated to me, I shall close this section, as they seem to me to throw some light upon the treatment of fevers I have recommended, and clearly evince the necessity there is of a free admission of air.

CASE XLVIII.

Rowell, one of the miserable captives above-mentioned, had been seized with a fever which continued its career, with increasing violence; and the exhibition of wine and beer, and even of bark, seemed to be in vain, as long as the greatest of cordials and antiseptics, vital air, was denied by the hard hands of merciless creditors.

I made a very careful inquiry into the circumstances which occasioned the imprisonment of this unfortunate victim; and by the information I procured, I found he had been an industrious sober husband, ready to work upon all opportunities that offered, whereby he had supported for many
years,

years, with irreproachable character, a wife and three children: some of these having lately been visited with sickness, his expences unavoidably exceeded his earnings, and involved him in a debt of little more than three guineas to his landlord, to whom he offered his all, which would nearly have discharged the whole debt; but the hard hearted man chose rather to throw this distressed family into Wood-Street Compter, than accept any compensation less than the full sum due to him. And for such a sum, this affectionate husband, this tender parent, this useful member of the community, was sacrificed at a period when his family stood in the greatest need of his protection!

C A S E XLIX.

Russel's situation was still more affecting: he had once known better days, having formerly been a reputable tradesman on

Lug-

Ludgate-Hill; but, from circumstances too shocking to relate, he was confined, for a sum under three guineas, to the naked walls of a prison, with a wife and five children, some of whom were helpless. The eldest, a girl about seventeen, was sufficient by the elegance of her figure, and more so by the filial care she took of her parents, to soften any human breast; by her unwearied industry, the whole family had been supported during their sickness and confinement. When I entered the impoverished mansion of this distressed family, too late to see the husband (*) in existence, the melancholy expressed in the countenance of this young woman, the frantic woe of the disconsolate widow, with the

(*) The son, a fine boy of fourteen years of age, was ill of the same fever which had carried off the father; who took the bark in very large doses, as well as wine, but without mitigating the disease; at length he was removed out of confinement, and carried into the country, soon after which the fever abated, and he recovered with very little medical assistance.

cries

cries of several children, pierced my very soul.

It would be injustice to the keeper of the Compter, not to mention his humanity, and readiness to afford every assistance in his power, by ordering the sick prisoners to be supplied with wine, beer, or whatever diet I recommended. It was likewise a satisfaction, to observe the sympathy of the prisoners in better health, who seemed to vie with each other in doing good offices for their diseased associates in misery; even cruel persecution had not obliterated the natural feelings of humanity, which their persecutors must certainly have lost.

C A S E L.

This case was communicated to me by my friend Surgeon Hurlock, and it so fully proves the necessity of exhibiting bark, without waiting for an intermission of fever,

ver, that I lay it with pleasure before the public.

A pregnant woman, 28 years old, who daily expected to be brought to bed, was attacked on the 9th of January with wandering rheumatic pains, especially in her shoulders and arms; at which time she had a disposition to a diarrhæa. On the 11th in the morning, she was seized with a violent shivering, which was succeeded in the evening with labor-pains; but as she was disappointed in her midwife, the child was born without any assistance, and the mother suffered greatly by contracting fresh cold; a fever with increase of her rheumatic pains, and a diarrhæa, ensued.

Jan. 13. The third day after her delivery, she took a rhubarb draught, and a cretaceous mixture was ordered to be given every six hours after.

Jan. 14. The fever was very considerable; she had a quick depressed pulse, 125 in a minute; the diarrhæa was increased,
and

and the stools were dark-colored, and very fetid; the tongue was dry, and a coma present, but neither the lochia nor milk had appeared; there was not any tightness or pain in the abdomen, except some griping from the loose stools. The hands and arms were so swelled, that it was difficult to feel the pulse; and so inflamed and sore, that she could hardly bear the touch of a finger.—No urine was saved. A cretaceous mixture was ordered with a little conf. card. & tinct. thebaic. to be taken after every stool.

15. She was nearly the same as yesterday, excepting the diarrhæa was a little abated.

16. The fever and diarrhæa were increased; the tongue was very dry and brown, and a miliary eruption appeared.—The medicines were changed for the pulv. e bol. comp. sine opio.

17. Her friends believing she must inevitably die, opposed giving any medicines, that she might not be disturbed; but being persuaded there was a chance for
life,

life, if they would still exert themselves, they complied with my directions. She appeared much worse, her stools were voided insensibly, and very frequently. Perceiving the fever plainly to be of the putrid kind, and that the patient must fall a victim to it, unless speedily relieved; the following was prescribed,

R pulv. cort. peruv. $\mathfrak{z}$ i. coq. leniter in
in aq. puræ $\mathfrak{z}$ xvi. ad $\mathfrak{z}$ xii. cap. $\mathfrak{z}$ iv. omni
hora.

But from the particular disposition of her friends, I could not procure any farther admission of fresh air, than by opening the door now and then.

18. The fever, diarrhæa and other symptoms were much as yesterday. As I found the frequent repetition of so large a draught of decoct. corticis could not be dispensed with, and that this and every thing taken presently passed off by stool, the following was substituted :

R pulv. cort. per. $\mathfrak{z}$ i. leniter coq. in aq.
puræ $\mathfrak{z}$ xii. ad $\mathfrak{z}$ vi. colaturæ turbidæ adde
tinct.

tinct. cinnam. ℥ ii. m. cap. coch. ii. com.
singulis horis.

19. The stools were equally frequent, though not quite so fetid, and a small remission of fever was observed. Three drops of tinct. thebaic. were added to each dose of the decoct. corticis, which was continued every hour as yesterday.

20. A remission was rather more evident than yesterday.

21. To-day there was a distinct, though short intermission of fever, in which she slept a little, and awaking rather refreshed and less desipient. The diarrhæa continued the same.

22. The fever and diarrhæa were abated. She had some refreshing sleep, and was more sensible. The tongue became moist, and in three days from hence, the mil-
liary eruption and all signs of putridity went off. Perceiving that her arms and legs, which had been highly inflamed and sore during the fever, were now become œde-
matous, that the blood was much im-
I poverished,

poverished, and the whole *vis vitæ* greatly impaired; she was urged to take some medicines farther to corroborate, and hasten the recovery of her strength, but she refused.—The œdematous swellings of the arms and legs were formed into abscesses, which broke, and continued a long time discharging matter; but all gradually healed as she recovered strength.

It seems not unworthy of remark in this case, that small doses of a strong decoction of the cortex, frequently repeated, succeeded better than large; and that during the exhibition of it, notwithstanding the diarrhæa continued nearly the same as it had been before, yet the stools became less fetid, and a remission of fever was soon obtained.

CASE LI.

The following case, which was communicated to me by a gentleman of character in his profession, likewise evinces the

the success of a spirited exhibition of bark.

Mrs. S. W. in the seventh month of her second pregnancy, was taken with a fever Nov. 9, 1773, and was delivered the 19th following, but being delirious, she knew nothing of it. An apothecary attended her only three days before her delivery, when her delirium first began, which gradually increased. After she was brought to bed, her pulse became more frequent and unequal, and her situation was such, as induced the apothecary to request farther advice. He had ordered spermaceti, confectio cardiaca, sal nitri, and the application of a blister to each leg.—The person who was called in found her with a pulse beating 150 in a minute, a face truly hippocratic, with delirium; and the tongue very brown and dry. Under these circumstances he ordered a decoction of the bark on the 20th.

On the 21st he found she had taken no bark; and her pulse was so indistinct, that

the frequency could not be measured. A clyster was ordered, and a mild dose of emetic tartar, which vomited the patient; and after recovering her senses in some measure, she was persuaded to take four ounces of a decoction of the bark every hour; the pulse was about 150. She passed an indifferent night, was delirious, but continued the bark.

On the 22d she appeared much better; her pulse did not exceed 100; she was sensible, her face was more natural, and the tongue was moist. However, she continued the decoction two days longer, and had then no complaint remaining, but weakness, and some difficulty of breathing. The latter ceased after taking a free dose of elixir paregoricum.

Her drink was given cold, and she was indulged with such as she fancied, which chiefly was cold water, beer, and cyder.

In this section I have carefully endeavoured to avoid reflecting upon the practice of other physicians, who continue to think

think differently from myself. I shall now conclude with suggesting the following questions.

Can a physician, who has daily experienced the inefficacy of the usual routine, in the treatment of putrid fevers, conscientiously adopt the same practice, where another mode appears more successful?

As putrid fevers arise in unventilated confined places, is not the free admission of good air evidently indicated?

As putrid fevers usually appear in summers and hot climates, and vanish when the cold seasons come on, is not exposure to cold air naturally suggested?

As growing vegetables absorb putrid air, and thereby purify common or vital air, is it not a rational practice to take patients with putrid fevers, into the country, where vegetation is the most luxuriant?

As bark, when given in the intermission of fever, obviates the exacerbation; is it not reasonable to conclude, that if it were

administered in the exacerbation, its effect would be still more salutary ?

When bark is indicated in putrid fevers, can a liberal use of it do any injury ?

Can any benefit be expected from giving an ounce of a weak decoction of bark, every four or six hours ?

Would a putrid fever be sooner cured by free exposure to air without bark, than by bark without exposure to air ?

SECT.

S E C T H.

Speculations on Opium, with Cases and
Reflections.

FROM the present use of opium, and its peculiar and sometimes opposite effects as a medicine, its modus operandi has given rise to a variety of theories, and excited inquiries respecting the matter upon which it is supposed to act.

To investigate causes, is as natural to the mind of man, as to view the phenomena of nature; and can we imagine this propensity implanted in us, without some useful design? Or is it not, from a view of this kind, that the mind is supported under the tedious and laborious task of collecting facts? And while any one keeps within such bounds, as to forsake, alter, or esta-

blish his theory according to his facts, and not to wrest his facts to coincide with a favorite preconceived opinion; true philosophy will never be injured, nor the interests of medicine thereby neglected.

It has been a received opinion, that a fluid is secreted in the brain, which is distributed by the nerves to every part of the body: but certainly this aqueous inelastic fluid, Boerh. instit. sect. 277, cannot be the vehicle of sense and motion^(b); especially if we consider what the same illustrious writer afterwards observes, sect. 447, “Nonne tibi
“clarum, materiem proximam nutritio-
“nis esse humorem subtilissimum nerveum,
“sive simillimum?”

By some it has been urged, that this inelastic fluid may act as a medium of sense and motion, in a state of vapor: this, however, would infer, that the mobility
of

(b) Upon the velocity of sense and motion, see the computations made by different authors: Ess. sur le mécanisme des musc. p. 93. Sauvages de la fièvre, p. 302. Haller elem. physiol. t. 4. p. 373 and 483.

of the nervous fluid must depend intirely upon heat; but we have certain evidence of the mobility of the nervous power subsisting in degrees of heat much below what is necessary to support any animal fluid in a state of vapor (°).

Fishes frozen may be carried to a considerable distance in this state, and yet be recovered to life again (°). Add to this, that cold generally proves a stimulus to parts it is applied to; which proves, that an elastic fluid, depending merely upon such a state of vapor, is not the vehicle of sense and motion.

There do not, indeed, appear any proofs of a secreted fluid in the nerves (°): were an elastic fluid confined within hollow tubes, upon their division it would consequently escape, from the property inherent

(°) Martin's essays, p. 3, 29, and seq.

(°) Snakes have been found in a frozen state in North America, and have revived by the returning warmth of the season, or by the application of heat. See also various relations respecting the torpidity of swallows, bats, &c.

(°) Vid. Elem. phys. t. 4. p. 561.

rent in elastic fluids of pressing quaquaversum; but contractility is found to subsist for a considerable time in the muscles of animals thus treated; and this contractility is even increased, the more the muscles are divided (^f).

There is, therefore, more reason to admit with Dr. Gaubius, Patholog. sect. 187, that this fluid is inherent in the nervous fibres, in a manner somewhat similar to that, in which the magnetic fluid is inherent in iron; but what this nervous fluid, this flame or fire of Paracelsus and Dr. Shebbeare, this æther of Sir Isaac Newton (^g) and the great Cullen, really is, I pre-

(^f) See Whytt's experiments on frogs. Haller's oper. minor. p. 358. Ib. exper. 140.

(^g) Adjicere jam liceret nonnulla de spiritu quodam, subtilissimè corpora crassa pervadente, & in iisdem inherente; cujus vi & actionibus sensatio omnis excitatur, & membra animalium ad voluntatem moventur, vibrationibus scilicet hujus spiritus per solida nervorum capillamenta, ab externis sensuum organis ad cerebrum, & a cerebro in musculos propagatis.

pretend not to explain, or to enter farther into, than is necessary to render the following observations clear and intelligible; but conclude with Dr. Gaubius, that it is, “Principium sui generis, viventibus inditum, quod privas sibi in agendo leges sequatur, sola observatione detegendas”. (Path. sect. 186.)

On the supposition that the nervous power depended upon a secretion, it has been imagined that opium had the power of inspissating the blood, and thus rendering it unfit for the secretion of so fine a fluid. But there is no evidence of such inspissation; on the contrary, if the blood suffers any change in its consistence from the use of opium, it becomes thinner and more rare^(h), which probably arises from the relaxation induced on the system by its use.

A celebrated professor⁽ⁱ⁾ has observed,
“ that

^(h) Pechlin circuli sanguinis. p. 128. Tralles de opio. p. 192. Baron & Lemery, p. 799. Mead on poisons, p. 259.

⁽ⁱ⁾ Clinical lectures, ann. 1768, by Dr. Cullen. To this cele-

“ that many people who had abused opium
 “ much, were remarkably liable to hæmorrhages ; and that the menstrual flux has
 “ continued in some women to the age of
 “ sixty, which could be attributed to no
 “ other cause.”

But even this tenuity and rarefaction, occur only after a certain length of time ; and, therefore, the opinion that opium acts, in general, by rarefying the blood, and giving thus an occasion of compression on the brain, is likewise inadmissible.

I have fed animals, for some weeks, on large doses of opium ; but I never was able to discover any change in the consistence of the fluids.

I know an elderly woman, who has, in the space of 14 years, taken upwards of 63 lb of thebaic tincture, and several ounces of

brated professor my acknowledgments are due upon this, as well as many other occasions ; and to him I can gratefully apply the words of the late Baron Van Swieten, respecting Boerhaave, “ Probe enim memini, & gratus recorder, me nunquam accessisse hoc oraculum quin redierim doctior.”

of crude opium, without any obvious effect on the state of her health. She was lately let blood, but it appeared so similar to what the healthy state affords, that no conclusions of increased spissitude, or tenuity, could be deduced therefrom.

Many hypotheses that have been suggested for explaining the effects of opium, do not deserve any comment; as the quantity of this medicine, usually prescribed as a dose, is too small to produce any considerable change in our mass of blood; unless it operated by means of a ferment, which, I believe, no body supposes.

Add to this, the suddenness of the operation of opium upon the stomach, in cases where its weight has been found not at all diminished (*).

That opium does not act upon the blood, but upon the nervous power alone, appears from many instances (†); where its application to particular parts of the body has dimi-

(*) Edinb. med. essays, vol. 5. 154.

(†) Vide Whytt on opium.

diminished the sensibility and mobility of such parts, without affecting the rest of the system: it acts likewise upon parts intirely separated from the rest of the system, and takes off both the sensibility and irritability of living animals, after the circulation of the blood has ceased; as appear by experiments made on frogs, when the heart had been taken out of the body.^(m)

If opium, therefore, diminishes the motion of the brain, and its energy on the whole system, it certainly also relaxes the arterial system⁽ⁿ⁾, and thereby gives opportunity to the expansion of the blood, which is in some degree an elastic fluid; and as the heart is not able to propel the blood so fast, it is accumulated in the large vessels. This accumulation will also be increased, by the diminution of many of the secretions from the same causes.

Besides, as opium lessens the frequency of

^(m) Whytt's Works, 4to. edit. p. 316.

⁽ⁿ⁾ Ib. p. 326.

of respiration, the blood has less free passage through the lungs; and hence is accumulated in the large veins, and occasions a turgescence in the brain (*), by which means the vessels of the brain are less able to propel their contents (†): yet this turgescence does not take place in time, to account for the narcotic effects of opium.

But from what has been said it appears, that opium, by its sedative power on the nervous fluid, diminishing sensibility and irritability, (‡) induces sleep; and this will apply to explain the effects of it in diminishing pain, and the motions of the system, and in lessening evacuations (⁂) in general.

Besides the sedative effects of opium just mentioned, in many cases it operates also as a stimulus, or excitement to the action of

(*) Tralles de opio. p. 89.

(†) Ib. p. 243.

(‡) Whytt's works, 4to. edit. p. 326.

(⁂) Ib. p. 326.

of the brain, and motions of the heart and large arteries, which stimulant power takes place in general before the sedative.^(*)

From this mixed quality of sedative, and stimulant, we can explain the reason why opium induces delirium, as this effect is never excited when the sedative power alone prevails.

Upon these different principles also it is, that the contrary opinions of Haller (*) and Whytt (†), respecting the action of the heart from the use of opium, are easily reconcilable.

But, besides these two effects, opium is also found to produce atonia, and to leave the system more irritable than it was before, after the sedative effects have passed off; probably because the sensibility of the system is sooner recovered, than the tone of the muscular fibres.

Hence

(*) Elem. phys. tom. 5. p. 609. Aët. Gottin. v. 2. p. 147, 154.

(†) Whytt's Works, 4to. p. 312 & seq.

Hence it is obvious, that the application of this remedy will be attended with many difficulties, as it is not easy to determine, before hand, how far the one or the other power will operate.

Another difficulty that arises is, that the sedative effects may go too far, and occasion unexpected death; as there are some motions of the system, which cannot be quieted by moderate doses, nor in which the least sedative effect can be produced by any quantity, without inducing death itself.

Thus a man, who, in general, can just bear half a pint of brandy, will not feel any effect from the same quantity when under a violent fit of the gout; even a pint and half has been tried without relief. Now if we push the brandy to a full dose, to produce effect, it will also by that dose destroy life intirely; and, with respect to opium, such a dose as is barely sufficient to remove pain, has in some instances proved suddenly fatal.

An hydrophobia, which is a spasmodic
K disease,

disease, might perhaps be cured by opium; but such a quantity as will be necessary to quiet the spasm, will also sometimes destroy life; and, therefore, whenever we see no effects arise from a very considerable dose, it will always be dangerous to proceed.

From the effects of opium as a stimulus, as a sedative, and again as producing atonia, numberless disputes have arisen about the mode of exhibiting it. I shall, therefore, endeavour, upon the principles laid down, to shew,

(A) Wherein its sedative power is indicated; and

(B) In what cases its stimulant power.

(A) Opium, as a sedative, is indicated, whenever there is an excess in the excitement of the system:

(a) As it relates to sensation; or

(b) As it relates to action.

(a) As it relates to sensation:

(a) In cases of pain, not the effects of in-

increased impetus in the sanguiferous system, or of inflammation.

(b) But if the cause be not removed, and appear permanent, though opium may give a temporary relief, yet, by increasing the irritability in consequence of atonia, it may augment the complaint it was given to remove.

(c) Nevertheless, in cases of which, from the nature of the human œconomy, the causes would probably soon pass off, opium may be used, as in the bilious calculi, (u) catarrh, &c.

(b) As it relates to action:

(a) When the excited action is in the sensorium, or brain, as in mania; provided the increased impetus of the blood, and determination to the head, be previously removed by evacuation, or diet.

(b) When the excitement may be in the moving fibres, as in convulsions and spasms, if there be not any great degree

K 2 of

(u) Journ. de medec. 1756. vol. 1. p. 71.

of atonia and mobility, or much fever present.

(c) When the excitement may be in the moving fibres of the excretories; as it takes off action, it may take off excretion. But it will be here improper, when fever and increased action of the vessels are present; and hence it is improper in hæmorrhages connected with these, and in the evacuation of sweat, which is always increased by opium.

(d) It is also improper where the evacuation depends upon a stimulus applied, which stimulus must first be removed; otherwise we increase the disease, as in the beginning of cholera, diarrhæa, dysentery, (*) &c.

(B) Opium, as a stimulus, is indicated whenever we want a stimulus; and where there is, at the same time, a small degree of excitement in the system.

(a) To produce its stimulant effect alone, we should give it in small doses only.

This

(*) Hoffman de opii mech. rat. agendi.

This may be illustrated by the use of wine or spirituous liquors, which have generally an exhilarating quality; and, if we stop here, we get purely the stimulant without the sedative effect.

(a) There seems also a considerable difference in the stimulating effects of opium: when the stimulant power principally affects the brain, it makes people chearful^(x); when it principally acts on the sanguiferous system, it renders them irascible: the same takes place in spirituous liquors.

(b) It might be imagined, that opium would be indicated as a stimulus in low fevers; but it must appear improper, when we consider the atonia which succeeds its exhibition, especially as we have a more certain and permanent stimulus in wine.

(b) The stimulant power of opium is indicated, when we want to excite the sanguiferous system on the surface in producing sweat; which, in general, cannot

K 3

be

(x) Philos. transf. No. 221. Hooke exp. p. 210.

be done by the inflammatory stimulants, without also exciting the sanguiferous system: but opium relieves us from this inconvenience, and induces sweat without much increased impetus; for while the stimulant excites the heart and larger arteries, the sedative effect acts diffusedly on the nervous power, and relaxes the extreme vessels.

(a) We are confirmed in this, from observing that a small dose of opium, below producing a sedative effect, does not thus operate by sweat; and it is upon this sedative power, more than upon the aromatic merely, that the famous theriacas are capable of exciting sweat.

(b) It is by the stimulant power probably, more than the sedative, that opium prevents the paroxysm of an intermittent, as related by Dr. Lind.

* CASE I.

I. R. aged 45, without any apparent reason, had been attacked for some weeks with almost constant convulsive twitchings of the right side, from the upper part of the hip joint, to a little below the false ribs, and extending into the right hand and fingers; particularly when in an erect position. These convulsive motions were always aggravated by exercise or talking, but they abated upon lying down, and perfectly ceased when asleep. He was otherwise in good health, of a robust habit, and slept in the night as usual.

After bleeding, blistering, the warm baths, and other remedies, had been fruitlessly attempted; the use of opium was recommended by an eminent physician.

March 23. he took six grains of crude opium, and the same quantity on the following day.

26. Nine grains were given him in the space of 12 hours.

27. He had 240 drops of *tinctura thebaica* in four hours.

28. Eighty drops were ordered every two hours: at the third dose, no sensible effect had been hitherto produced; at nine in the evening he took the fourth dose, and was then put to bed, having the convulsions as usual. Early in the morning he was found expiring in an apoplectic fit.

On dissection, the whole contents of the brain appeared perfectly natural, as did the intestines and stomach, except that in the latter a very slight inflammation was discernible.

During the exhibition of opium, he had been costive; and from hence probably the opium might be accumulated in the system. The case, however, affords a melancholy proof, that just such a dose of opium as is requisite to quiet certain irregular or convulsive motions in the system,
is

is likewise sufficient to destroy life, or the whole nervous energy.

In similar circumstances, would it not appear adviseable to introduce laxatives during the exhibition of this powerful medicine; lest, by its accumulation in the system, such a sedative power should be exerted, as may entirely annihilate every motion of the body? Though no opium was found in the stomach or intestines, the sedative effect might be augmented from every additional dose; as in such instances where the torpor is irresistible by the common doses of opium, the effect of the preceding doses, not taking place, may not so quickly pass off, but remain in the pristine quality of opium, though in a latent state; till repeated doses, by their sudden united force, act as powerfully as if the sum of all the doses had been exhibited at once.

* C A S E

* C A S E II.

Soon after seeing the event of the preceding case, I visited a gentleman in the city, with symptoms of the nearest resemblance. He took the thebaic tincture in larger and larger doses, till it amounted to 180 drops in a day; and every morning a mild laxative was administered. The tincture procured him about four hours sleep in the four and twenty, and the above dose was persevered in for nearly the space of a week, when he began to show signs of amendment, which continued in an agreeable progression for a week longer: then his convulsive motions intirely ceased; and a degree of vesania, which sometimes arose, was likewise obviated.

There is reason to presume, that early in this disease a much larger opiate than was administered, would not have procured any relief; and that such a dose as would have subdued the convulsions, would also have obliterated all the motions of life.

* C A S E

* C A S E III.

Sufannah Taylor, aged 43, was admitted a patient to the General Dispensary in March 1773. She had enjoyed good health till about two years before, at which time she was first seized with convulsive twitchings in the left side, accompanied with a most acute pain under the short ribs, shooting towards the region of the stomach. These fits continued from half an hour to three hours at each attack, coming on mildly at their commencement, but increasing in violence and pain to such excess, as to excite convulsions through the whole day; under which the patient appeared to suffer the most excruciating torture, till at length (nature being exhausted) she sunk into a state of stupefaction, and in a short space of time regained her usual strength. In some of these fits a spontaneous vomiting ensued, and thereby terminated them sooner, but no particular matter was ejected.

These

These convulsions sometimes occurred two or three times a day ; sometimes she enjoyed a week's respite ; but, during the intervals between them, her health constantly returned ; so that her life consisted of an alternation of perfect health and painful disease.

The menses had not ceased, though they had diminished in quantity ; her countenance had a freshness and color denoting healthiness and vigor.

Besides laxative remedies, she had tried bleeding, camphor, volatiles, blisters, bark, acids, alkalies, flowers of zinc, and fetids in various forms, agreeable to the directions of physicians at home and abroad, but without benefit.

From the frequent eructations of wind she passed, joined with the other symptoms, I considered that flatulence in the stomach and bowels principally excited this direful disease ; and that, besides opiates to quiet the convulsive motions, it was necessary to absorb the superabundant
air,

air, which seemed detached into these viscera, and sometimes extended them sensibly to the touch.

As the spontaneous vomiting always contracted the duration and violence of the fits, I ordered an emetic draught to be taken every week :

And also four ounces of lime water to be drank three times a day, in order to absorb the fixed air which might be let loose from the aliment, and accumulated in the intestines.

For the same indication, and likewise as an antacid, two drachms of calcined magnesia were recommended three times a day; and one drachm of the paregoric elixir was exhibited once a day at least.

Diet of easy digestion, and the least flatulent, was at the same time advised.

The first week she experienced ease.

This excited perseverance; the fits gradually diminished in violence, and in frequency; and, in the space of two months,
nearly

nearly subsided; at which time the elixir was omitted.

She continued to take calcined magnesia and lime water for a week afterwards; and since she was discharged from the Dispensary, her health hath remained uninterrupted, without the use of any medicine.

* C A S E IV.

John Parks, aged 72, was admitted to the Dispensary on the 18th of September 1773, for a complaint with which he had been attacked about a fortnight before, without being able to assign any cause for the same. Each paroxysm commenced with convulsive twitchings about the muscles of the left eye, which extended over the muscles on that side, and afterwards over those of the whole face, whereby it was drawn into the most frightful contortions in about the space of ten minutes; after which the convulsions gradually descended

scended into the arms and legs; and, at length, the whole body was drawn into a most shocking unison. Sometimes, while the staring eyes were fixed upon you, the miserable patient would dart forth his arms, and catch at the nearest fixed object, in order to procure stability to the convulsed frame; at others, he would spring off his chair, and seize the back of another; for a moment remain motionless; and again, after the prelude of twitches in the face, the whole body became convulsed.

This dreadful paroxysm lasted about a quarter of an hour, and occurred at very unequal intervals, but frequently four, five, or six times a day. At any time touching the left eye or cheek with a hand, would excite a fresh paroxysm, regularly passing through the different stadia, from the slight convulsion of the muscles of the left eye, to those of the whole body; during which the patient suffered the most violent pain, confined through the whole convulsive paroxysm to the left eye. If
any

any person attempted to assist or hold him in these fits, they were increased in violence and duration, though the patient frequently attempted to lay hold of different parts of his body himself, as well as upon fixed objects. This is but a faint picture of the horror these paroxysms excited in a bystander. I remember once, at the Dispensary, he was attacked in the presence of about ten men, who were also patients; and they were so alarmed, that they escaped out of the room, as the safest method of avoiding the fury of a madman.

Between these fits he appeared well, his senses clear and perfect, though his strength was somewhat reduced by the convulsions he had endured.

About two years ago he had been under my colleague Dr. Hulme, who had ordered him to be electrified, which procured instant relief, and he had continued in health till he came under my care. As electricity had proved so efficacious, I ordered him to undergo the same process: this he did repeatedly,

edly, but without any benefit; the paroxysms he thought were rather more violent. I then recommended the taking large doses of the antispasmodic powder, but no mitigation was procured from this inert medicine, as I suspect the flos zinci to be a mere calx only. Camphor, in free doses, was likewise useless; bark also, after long trial, and emetic tartar, were equally ineffectual. The cold, as well as the warm baths, procured no respite.

I then resolved to exhibit opium, first in small, and afterwards in large doses, as I found that not less than ten grains in twenty-four hours were sufficient to quiet the convulsions; this quantity succeeded, and relieved the patient from much misery: the fits, however, now and then recurred at distant intervals; but, as often, this powerful sedative quieted the violent commotions, and restored tranquillity to the frame. Throughout the periods of exhibiting opium, I took particular care to in-

L

terpose

terpose laxative medicines at least every other day, lest such an accumulation of opium should be formed in the primæ viæ, and system, as might destroy not only the convulsions, but every function of the body also, as intimated in a preceding case.

He was discharged from the Dispensary in good health, and continued free from any paroxysm for some months afterwards; but I have been since informed, that he was seized in his chair with an apoplectic fit, in which he suddenly expired, without the least prelude of any complaint whatsoever.

C A S E V.

Sylvanus Reeves, of Water-Lane, Fleet-Street, aged 38, was carrying a load from one of the barges on the banks of the Thames, when, by the slip of his foot, he had the misfortune to fall overboard into the river, out of which he was taken with some difficulty.

After

After changing his cloaths, he did not perceive much occasion of complaint ; though he was sensible of a general soreness over his body, and particularly a slight stiffness in his neck, which he attributed to cold from the ducking, or to some bruise which he imagined he had received in his fall.

About three days after the accident, the rigidity was become so considerable, and the breathing so laborious, that, on the 18th of November 1773, he was admitted a patient in the Dispensary. I found the muscles, on every side the neck, as rigid as in a tetanus ; three cases of which I had seen in the West Indies, and two of them terminated favorably, by remedies very similar to those administered to the present patient ; whose breathing, and particularly his inspiration, was shocking to observe ; the most violent hooping in the kink-cough, would be agreeable compared to it ; instant suffocation seemed to await him, betwixt each essay to cough. The vola-

tile liniment was ordered to be incessantly applied to the muscles of the neck ; the body to be kept laxative ; the febrifuge powder, grana xvi. to be taken every night ; and one ounce of the *mistura spermatica volatilis*, frequently. For two days this method was observed, with aggravation of the symptoms : indeed, in the second evening when I saw the patient, I relinquished all hopes of success ; he was not quite insensible, but totally unable to utter a syllable ; his cheeks were sunk, and his aspect was cadaverous. In this distress I was determined to make some powerful effort, to avert the pangs of death.

A blister was immediately applied to the forepart of the throat, descending to the breast ; another blister to the back ; and a poultice of bread and milk and sweet oil was applied round the throat. One drachm and a half of the *elixir sudorificum* was instantly given ; and, to eight ounces of the spermatic mixture, half an ounce of the
sудо-

sudorific elixir was added, the whole of which was taken in twelve hours.

The next day he was sensible and capable of speaking, but had not the least consciousness of having passed over the preceding day.

The blisters had effect; the same internal remedies were continued, and also the application of the poultice. In three days the disease became moderate; the cough increased, and a free-expectoration ensued; the opiate was gradually diminished, and the *mistura oleosa volatilis* substituted for his former mixture.

On the fourth of December he was discharged, cured.

The blisters, in all probability, as well as the poultice, contributed to save the life of the patient: the opiate also had, doubtless, a considerable share in the benefit; it procured sleep, and probably tended powerfully to remove the spasm, and promote sweat and expectoration, these being the general effects of opium. How-

ever, I think it must appear evident, that the life of this man was saved by the whole of this timely and spirited interposition.

* C A S E VI.

Elizabeth Moss, a girl of about 15 years of age, was attacked in the month of December 1773 with a slow nervous fever, during the course of which she had very little sleep; an anodyne was, therefore, recommended; but, through some mistake, she took about half an ounce of thebaic tincture, and almost instantly fell asleep: in this state she continued, nearly motionless, a day and a night, but with a tolerably free respiration. I saw her at this period, and attempted to get some vinegar down her throat; but she appeared to have almost lost the power of deglutition, and every sensation of the body; however, by tea spoonfuls, near half a pint of this acid was at length introduced, but no salutary effect resulted therefrom: the application of volatiles

latiles and blisters to the body was equally ineffectual; and, in about twelve hours after my visit, she ceased to breathe.

Vinegar has been recommended as an antidote to opium (*) ; but, where the sedative quality of the latter has extended its influence over the system, the use of vinegar is then unavailing; and as the stomach loses its sensibility, emetics do not stimulate it to vomit, nor purgatives to move the intestines, so as to excite a diarrhæa.

In fevers, where the nervous system is greatly reduced, a very small quantity of opium proves sedative; in such cases, therefore, too much caution cannot be recommended.

(*) Vid. Percival's *experim. essays*, vol. 1.

S E C T III.

Observations on a Species of Leprosy.

THE kind of leprosy, which is the subject of this section, is properly termed by Sauvages (*), *lepra ichthyosis*, the peculiar appearance of which is much better known than the method of cure: although it occurs frequently, it hath not been attended to with that accuracy, which a distemper so disagreeable to the patient, as well as so difficult to remove, might demand.

At first it appears in red spots on the skin, of a roundish figure, which rise up into sensible eminences, and, being scratched, a fluid cozes out. When the cuticle becomes thin, they seem evidently more or less

(*) *Nosologia method*, tom. 2. p. 572.

less separated, and then resemble so many transparent scales, which generally do not fall off, 'till a new cuticle is formed below, which in a little time rises again in the same manner in a dry, scaly, crusty eruption; sometimes confined to particular parts, at others occupying nearly the whole surface of the body, or removing from one part of it to another, without any evident cause; and, in summer, sometimes intirely leaving the patient, and returning again in autumn, or winter.

So far as my observation hath assisted me, this loathsome disease does not depend on a particular diet, as several of a family have lived together on similar food, where only one has been afflicted; neither is it confined to any particular temperament. Though it usually appears in both sexes about the age of puberty, or, after that, towards the acme of life, in those especially of light colored hair, and smooth fine skin; yet it certainly is not contagious, as it subsists in individuals of

a family, without affecting the rest, where no reserve or precaution had been used in their communication. People advanced in years have it in less degree than the former, but no time of life is totally exempt from its attack.

Besides the preternatural appearance of the skin, no function seems interrupted or impaired, nor any other complaint evident. It would therefore appear to be purely a topical cutaneous disease, which probably arises from some affection of the secretory organs or glands of the skin (*).

I am sorry that I am obliged to make the next observation, that this is a very obstinate disease; in which the most powerful applications have often been tried for a considerable length of time, to no purpose. Some of these I shall enumerate, as it may not be improper to ascertain how far our knowledge at present extends, with respect to such remedies.

The long use of purging by sea water,

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(*) Vid. Halleri physiolog. tom. 5. p. 13.

as well as bathing in the same, and the use of other waters deemed alterative, have been tried in vain; and likewise various preparations of antimony and mercury, as the plumber's æthiops, æthiopic pill, James's powder, emetic tartar, and sublimate corrosive mercury, assisted with a decoction of sarsaparilla and mezereon. Mercurials and antimonials have also been combined, with a view that the latter should determine the mercury to the skin; but these have been followed by as little success; even salivation proves ineffectual. Many topical applications have been also unsuccessful: saccharum saturni, and other preparations of lead, and likewise those of mercury, have been fruitlessly attempted. I have known large blisters applied over this obstinate eruption, and for some time afterwards the new skin appeared whole; but this afforded a temporary respite only, the disease returning again with its former violence.

Although these active medicines have
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thus deceived us, we are not to consider this disease as inflexible to every thing, and desert remedies of less sensible powers, which may produce, by time, perseverance, and proper application, what those apparently more powerful are incapable to perform. I have reason to make this observation, from the good effects which have succeeded the exhibition of a substance of the vegetable class, the inner bark of the elm tree. The cases of leprosy, of the species of ichthyosis, which have hitherto occurred to me, some of which were violent, and the eruptions very general, have been cured by its use; on which account I have seldom, of late, applied any other remedy.

I am sensible that this remedy has been long in use, particularly as a topical application. In the medical transactions of the college, vol. 1. a very useful paper is inserted by Dr. Lysons, upon its efficacy in obstinate eruptions; and, indeed, one of his cases had evidently the appearance of the
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lepra ichthyosis, which was successfully treated by the elm bark: but admitting these facts may in some measure ascertain its utility in distempers of this class, yet as this vegetable was not administered alone, I presume some additional observations upon it will not be intirely useless, especially when the importance of the disease, and the loathsome unhappy situation of the patient it obviates, are considered. In such instances to establish a successful mode of practice, may contribute as much to the interests of medicine, as subjects which may captivate more by their novelty.

From the recommendation of a physician, whose abilities and judgment are unquestionably great, I was induced in my earlier practice to apply to the juniper shrub, as the ultimate remedy in obstinate eruptions; and the success which I remarked from it, in the milder kinds of herpes and scorbutic eruptions, flattered me to expect the same success in the leprosy: but

I have been undeceived by experience, as will appear by the following cases, which I have selected from several others, similar in their progress and termination.

CASE I.

John Cox, about 13 years of age, of a fair complexion and light colored hair, had been received into an hospital for a leprosy, which had continued for about three years, and occupied great part of the body, particularly the hands, arms, and legs. He took many different remedies, and was also ordered to use the warm bath. In the space of six months he was discharged without relief. In the month of March 1773, he was admitted to the General Dispensary; he was here ordered to take about a pint a day of the juniper decoction, for at least a month, during which time mercurials, antimonials, and nitre, were administered; and mercurial
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and other ointments, as well as a solution of lead, were externally applied.

In the second week the eruption was more favorable; this was but temporary; the disorder appeared in a few days with its usual aspect. I now ordered three ounces of the decoction of elm bark to be taken every day, which, in a fortnight's time, produced a considerable change; and, in about a month afterwards, his skin was smooth and free from any eruption.

C A S E II.

Mary Broadfoot, a young woman of a fair delicate complexion, was admitted to the Dispensary in June 1773. The leprous eruption had extended over most of the body, but occupied with particular violence the thighs, legs, neck and arms. She tried the juniper decoction in vain, and mercurials were exhibited without effect; tar water procured no relief; peruvian bark was also given without success;
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the warm bath was useless; but after all these attempts, the use of the decoctum ulmi for three weeks, of which she took near a pint a day, restored the skin to its natural smoothness and softness, void of that lothsome blemish, which had for a long time before been inflexible to medicine.

C A S E III.

Hannah Webber, a young woman aged 21, in July 1773 observed an eruption on the arm, rising in flattish, but sensible eminences, of a red color, which gradually became covered with a white farinaceous scurf, and seemed afterwards to die away for a few days, when the same kind of eruption again succeeded, and thus continued to disappear and return till the seventh of February 1774, when she was admitted to the Dispensary; at which time the eruption had extended to several parts of the body, particularly upon the legs, thighs, neck and head; and, when warm, became

became extremely troublesome by the itching; the menses had not appeared for three or four months past, but, in other respects, she was in good health.

I ordered two of the *pilulæ aloeticæ* to be taken every night, and a pint of the decoct. ulmi to be drank every day, which, in the space of three weeks, restored the skin to its former smoothness: but the itching still continued; on which account she took the *mistur. nitrosa*, with the other medicines; and, in about two weeks afterwards, she was discharged, without any blemish, although no change respecting the menses took place.

In these cases the elm bark proved the only salutary remedy. — In some other instances I have given a drachm of nitre a day, with the appearance of advantage; but I never found it of evident utility when taken alone. I have also tried several external applications, but none has been so useful as bees wax and olive oil, in cerate;

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it softens the dry scaly eruptions, and renders them much more tolerable to the patient; but whenever this was applied, I ordered it to be washed off again with warm milk and water, previous to the fresh application of the cerate, lest the former should have acquired any rancidity.

At the same time that the elm decoction is used, other circumstances will doubtless be regarded; the body should be kept rather laxative, and the patient should live upon a larger proportion of vegetable diet, avoiding those meats particularly that are the least perspirable.

If the disorder prove obstinate, the decoction should be continued for some months.

Complaints which have long subsisted, though removed by proper assistance, may sooner recur again from habit; at least this may contribute with other causes in promoting the return of this species of leprosy, at seasons the most favorable to its production;

tion; for sometimes it seems intirely removed in the spring, when the warmth of the weather increases with the year; and returns again with the returning cold, towards the conclusion of autumn. It would hence be adviseable to repeat this decoction, with the other precautions, at those periods when the disorder may be most suspected, till the patient has a probable security against any future attack.

M 2 S E C T

S E C T III.

A Defence of Inoculation.

THE following ingenious piece, which appeared a few months ago in a periodical publication (*), having engaged the attention of several readers, I have taken the liberty to insert it here, previous to the defence of inoculation, to which it gave rise; and I introduce it with more pleasure, as it contains the principal objections formerly urged with so much success against this practice, by the celebrated Dr. Rast, of Lyons..

“ The advantages resulting from inoculation are the perpetual boast of the practitioners of that art; and faith in this point is so essential an article in the modern medical

(*) Monthly Ledger, No. 6. p. 199.

dical creed, that any hesitation respecting it may be deemed a kind of heresy in physic. From the smallest glimmerings of doubt, however, have arisen the highest splendors of knowledge; and theories, which caprice and antiquity have favored and established, would be utterly impregnable, if some licence of doubting were not allowed, and if an appeal did not lie to observation and experiment."

"The success of this expedient hath usually been estimated by comparing the proportion of those who die, to those who recover, under the natural course of the small-pox, with the proportion of deaths to survivals under inoculation. But this I apprehend to be a mere sophism. The fury of the pestilence itself might probably be mitigated by such an artificial process; but the proper inquiry in either case, is, whether the disease can be mitigated to such a degree, as to overbalance the mischief which would arise from spreading the contagion. If a less number of deaths by

the small-pox, in proportion to the whole number of burials, has happened since the introduction of this mode of treating it than before, it will afford a strong presumption in its favor. If a greater number of deaths has occurred, the benefit will be more problematical: for if, upon the whole, more lives are now lost to the community by this disorder than heretofore, it will be in vain to urge that individuals will find their account in adopting the practice, because the danger of infection is thereby increased. What is hurtful to the community at large, cannot generally be beneficial to the members who compose that community; and if greater loss be sustained by inoculation than by permitting the disease its natural course, the abolition, rather than the continuation, of that practice, must be esteemed a public benefit."

"In all inquiries of this kind, the wider the field of observation, the more justly will the conclusions be founded. Inoculation hath now been established a sufficient

cient number of years to ascertain, at least in some degree, its merit. A series of forty-two years since it has prevailed, compared with the same period previous to its introduction, in so large and populous a city as London, it is presumed, will afford fair and reasonable grounds of a calculation to that purpose."

"It fortunately happens, that the experience of forty-two years, preceding the introduction of inoculation into this country, is already placed in this point of view, and for this express purpose, in the Philosophical Transactions, by Dr. James Jurin (°), who was a sanguine advocate for inoculation, and whose testimony is therefore unexceptionable. His numbers are taken from the yearly bills of mortality; and the reason why the fourteen years from 1686 to 1701 are omitted, shall be given in his own words: "The fourteen intermediate years, between 1686

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(°) Eames and Martyn's Abridgment, Vol. VII. page 613.

" and 1701, are left out, because, in the
 " bills for those years, the accounts of the
 " small-pox and measles are not distin-
 " guished, as in the preceding and follow-
 " ing years, but are joined together in one
 " article; so that from them no certain ac-
 " count can be drawn of the number of
 " persons that died of the small-pox.

From

From the YEARLY BILLS of MORTALITY.

Years	Total No of burials	Dd. of fm. pr. In all 1000		Years	Total No of burials	Dd. of fm. pr. In all 1000	
1667	15842	1196	75	1731	25262	2640	104
1668	17278	1387	115	1732	23358	1197	51
1669	19432	951	49	1733	29233	1370	46
1670	20198	1465	73	1734	26062	2688	103
1671	15729	696	44	1735	23538	1594	67
1672	18230	1116	61	1736	27581	3014	100
1673	17504	853	49	1737	27823	2084	74
1674	21201	2507	118	1738	25825	1590	61
1675	17244	997	58	1739	25432	1690	66
1676	18732	359	19	1740	30811	2725	88
1677	19007	1678	88	1741	32169	1977	61
1678	20678	1798	87	1742	27483	1429	52
1679	21730	1967	91	1743	25200	2029	80
1680	21053	689	33	1744	20606	1633	79
1681	23971	2982	125	1745	21296	1206	56
1682	20691	1408	68	1746	28157	3230	114
1683	20587	2096	102	1747	25494	1386	54
1684	23202	156	7	1748	23869	1789	75
1685	23222	2496	107	1749	25516	2625	102
1686	22609	1062	47	1750	23727	1229	51
1701	20471	1095	53	1751	21028	998	47
1702	19481	311	16	1752	20485	3538	172
1703	20720	898	43	1753	19276	774	40
1704	22684	1501	65	1754	22696	2359	103
1705	22097	1095	50	1755	21917	1988	90
1706	19847	721	36	1756	20872	1608	77
1707	21600	1078	50	1757	21313	3296	154
1708	21291	1687	79	1758	17576	1273	72
1709	21800	1024	47	1759	19604	2596	132
1710	24620	3138	127	1760	19830	2187	110
1711	19833	915	46	1761	21063	1525	72
1712	21198	1493	92	1762	26326	2743	104
1713	21057	1614	77	1763	26143	3582	137
1714	26569	2810	106	1764	23202	2382	102
1715	22232	1057	48	1765	23236	2498	107
1716	24436	2427	99	1766	23911	2334	97
1717	23446	2211	94	1767	22612	2188	96
1718	26523	1884	71	1768	23639	3028	128
1719	28347	3229	114	1769	21847	1968	90
1720	25454	1440	57	1770	22434	1986	88
1721	26142	2375	91	1771	21780	1660	76
1722	25750	2167	84	1772	26053	3992	153
Gen. average	903798	65079	72	Gen. av.	1005279	89628	89

“On comparing these tables, it appears that, out of 1005279 burials within the last 42 years, 17242 persons more have died by the small-pox than the proportionate number, as collected from the experience of the first 42 years; or seventeen more burials in a thousand have been occasioned by the small-pox, since inoculation hath been generally adopted, than before.”

“Should it be objected, that it is unfair to estimate the success of an improving art, by a general average from its first rise, we will examine it by shorter periods, in its progress to the present year.”

“The æra of inoculation is about the year 1722. In the first eight years, from thence to 1731, the little ground which it had gained, and the care taken to prevent the infection from spreading, made, I suppose, very little alteration in the fatality of the disorder.”

In the 12 years, from 1731 to 1742 inclusive, the average proportion of deaths,
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by the small-pox, is 74 in 1000; in the succeeding ten years it is 83; in the next ten it is 96; and in the last ten, when the disease, and the method of treating it are supposed to be better understood than ever, it is increased to 109: doth not this intimate connection, between the progress of inoculation, and the destructive increase of the small-pox, lead to a suspicion that the one is in some degree, at least, influenced by the other? And may it not be asked, with some appearance of reason, where is the cause for those triumphs which have so unsparingly been claimed for the success of this fashionable innovation?

“ The inferences, naturally arising from this view of facts, tend strongly to this conclusion: *That inoculation, as practised in this country, hath not been attended with the salutary effects expected from it; but that it hath, on the contrary, been prejudicial to the interests of society.* For though the practice, under certain restrictions, were
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to be allowed its due merit, the present indiscriminate mode of adopting it, under a total neglect of that attention to the seclusion of the infected, which the public good and the dictates of humanity jointly require, can hardly be denied to have been of pernicious consequence."

"This mode of computing the value of inoculation, I think, with Dr. Jurin, is the fairest that can be obtained; because, in so large a compass of years, other diseases may be presumed to claim their just and equal average; and because it precludes any objection which might arise from a variation in the number of inhabitants."

"I tread this path, I own, with diffidence; yet it hath not been wholly unfrequented. Similar doubts have some years ago been started, and the experience, since acquired, hath given them additional weight. If, however, there are any insecure places on which the argument rests, your medical correspondents, I am persuaded, will not fail to detect them,
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and clear the subject from these apparent embarrassments. But it should be remembered, that it is always difficult to demonstrate a negative proposition. The burthen of proof is evidently incumbent on those who affirm, that great public advantage is derived from inoculation; and, before the general assent to this opinion is expected, the facts and inferences which support it should be produced, and shewn to be clear, full, and decisive."

"As I do not mean to enter into the usual topics of declamation, I forbear to insist on those malignancies which are often said to be consequent on this artificial disorder; and which, I fear, are indeed too frequent to be totally overlooked in a full discussion of its merit."

"There is a certain boundary prescribed to man by nature, beyond which whenever he attempts to pass, he becomes somewhat in the situation of the countryman in the fable, who petitioned Jupiter for the
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management of the winds and weather, and was nearly ruined by the grant of his request : or rather, perhaps, in that of a bungling workman, who, undertaking to mend the scheme of a skilful architect, pulls down the building over his own head." Thus far the ingenious objector.

Habit exercises its influence over every part of the globe ; from the Hottentot and Laplander, to the civilized European and Asiatic, a bias for ancient manners and customs generally prevails, as the author of the Traveller justly intimates :

For every man, to native custom prone,

Conforms and models life to that alone.

GOLDSMITH.

From this propensity every change, and consequently every improvement, meets with opposition ; and the strongest arguments lose their force when directed against prejudice, the straightest lines appearing curved to an impaired vision. With persons thus prepossessed, reasoning would be attempted in vain ; but a writer of that

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accuracy and candor, so conspicuous in the objector, whose doubts respecting inoculation seem to be suggested by the fairest calculations, merits the utmost attention, from the importance of the subject, and from the candid manner in which the same has been treated.

Soon after inoculation was introduced into this country, it is not admirable that much illiberal reflection should have been urged against a practice so novel and extraordinary; and this was done not only by the illiterate, but likewise by persons of information and learning, particularly by many of the faculty, and of the clergy. Their attacks, however, were rendered futile by fair and authentic calculations^(d), made in various parts of this kingdom, of which I presume this objector is sensible, as no suspicion to the contrary

(^d) Particularly by Dr. Jurin, Dr. Nettleton, Dr. Maitland, and Dr. Scheuchzer, in the Philosophical Transactions, and also in separate dissertations.

trary is admitted into his ingenious essay. The mind, that is guided by partial reasoning, is fruitful in raising expedients to overcome every obstacle to its favorite view : thus, when the success of inoculation had been established by incontrovertible facts, objections of a different nature were surmised ; the risque of ingrafting the disease of a morbid subject into a healthy person, was exhibited with all its dismal attendants ; and the bias, that magnified this presumptive danger from inoculation, prevented the same individuals from observing the frequent and shocking effects arising from the natural small-pox. However, the opposers of inoculation in this kingdom do not appear to have retarded that practice ; they generally wrote with too much virulence, or in too futile a manner, to promote the cause they espoused ; amongst these, Dr. Wagstaffe, Dr. Howgrave, and Gerard Sparham, were early partisans, as well as some of the clergy,

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particularly M. Maffey (*), and M. Delafaye, whose sermons against inoculation have been published; but the objections of these writers were fully answered by Dr. Jurin, Dr. Nettleton, Dr. Maitland, Dr. Brady, Dr. Slare, Dr. Williams, Dr. Strother, Dr. Timoni, M. Boylstone; and since by David Some, and the bishop of Winchester, whose sermon was likewise made public.

On the continent, inoculation has been opposed with more success, and indeed with such arguments as have nearly put a period to the practice. The late celebrated Baron Van Swieten (†) discouraged it; and the present Archiater at Vienna, Dr. De Haen, has given still more weight to the objections: but Dr. Rast, of Lyons, stands the most distinguished antagonist; though the fatal period to its progress may

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(*) I am not certain whether this gentleman, or Dr. Wagstaffe, first supposed that the devil was the first inoculator, who practised the art upon honest Job.

(†) In the last volume of his elaborate commentaries, De Variolis.

be dated from the remarkable *Rapport sur le fait de l'inoculation de la petite verole*, 1763, made by Dr. L'Epine, Astruc, Bouvart, Baron, Verdelham des Moles, and Macquert, of the faculty of medicine at Paris, in spite of the most notorious success in inoculation by Dr. Gatti, and of his earnest remonstrances on that subject. Dr. De Haen's *Difficultates super inoculatione variolarum*, Viennæ, 1757, have been answered by Dr. Tissot, well known from his *Avis au peuple*, his treatise *de feb. biliosis*, and other works. De Haen does not, however, appear satisfied with this reply, nor with M. De la Condamine's on the same subject; but Dr. Tissot has closed this dispute by a private letter to Dr. Haen, wherein he observes, "*Les pièces sont sous les yeux des juges: attendons donc le jugement du public, & de la postérité*"^(*).

Baron Van Swieten's observations do not demand a reply: those of Dr. Rast were too important and cogent to pass long unnoticed, and accordingly many writers

(*) Ratio med. t. iii. p. 589.

ters on the continent entered the list against him, in that and the subsequent year wherein his work was published ; but none have ever seemed equal to the combat, except the Chevalier de Chastelluz, who engages Dr. Raft upon the same grounds he had commenced the attack, namely, the London bills of mortality. It must be confessed the Chevalier has not intirely removed the difficulties raised by Dr. Raft, and now revived by the foregoing writer upon a more enlarged scale.

As this subject therefore has excited the attention of the public here, as well as on the continent, I shall now attempt a review of the arguments deduced from the calculations, which I shall enter upon with more pleasure, as the objections carry the appearance of candor and importance.

As these objections do not invalidate the numerous facts which have established the success of inoculation, the whole therefore may be reduced to this one point of view,
 “ That more persons have died by the

“ small-pox in London, since the introduction of inoculation, than preceding that period, in consequence of the decrease thereby being more universally extended and propagated.”

In answer to this proposition, I shall endeavor to shew, that this modern practice is not the cause of propagating the small-pox; and afterwards to ascertain the real causes of this increase of deaths by so fatal a disease. It might naturally be premised, that as the number of burials by the small-pox increased every year nearly progressively, the cause thereof can scarcely be supposed to depend upon inoculation, as this practice has been steady and regular since its introduction; especially if we consider that another infectious disease, the measles, hath increased in fatality in nearly the same proportions with the small-pox, which must undoubtedly arise from other causes, as inoculation of the measles ^(b) hath never been practised in this

(^b) By the bills of mortality, it appears, that fevers in general have augmented in a similar progression. See Dr Millar on Antimony, just published.

this kingdom ; and these causes, I presume, are such as equally influence both diseases. A presumptive argument may likewise be surmised from the mildness of the infection arising from subjects under inoculation of the small-pox, who are principally infants, and therefore, being of less bulk, propagate less contagion, which, added to its mildness, must diminish the quantity of variolous particles.

It is, however, indubitably evident from the bills of mortality, that more persons take the small-pox since the introduction of inoculation, than heretofore ; a fact which may easily be accounted for without referring to a successful mode of escaping the fatality of that disease, if we reflect for a moment upon the total revolution which the old method of treating it has undergone, which will also explain why the increase of burials by the small-pox has been so progressive ; every person is now acquainted with this innovation in

practice, which has been almost universally adopted by the faculty. Though Sydenham ⁽¹⁾ practised and recommended the cold regimen alluded to, full as much as the moderns, yet, when inoculation was first introduced into England, the victims of the small-pox were confined to their rooms, and obliged to undergo every process which has since been found to aggravate the disease. It is true, that by this injudicious treatment the variolous infection might not be propagated so generally, and consequently fewer deaths would occur by the small-pox, in proportion to the whole burials, while many more would fall by the disease itself in proportion to the number of those who received it.

Hence it will be readily admitted, that the late increase of burials cannot depend upon the practice of inoculation, under which it is a rare thing to hear of one fatal case; but rather upon the innovation

(1) See the remarkable account Dr. Dover relates of himself in his Last Legacy.

vation introduced in the treatment of the natural small-pox, of exposing the patients to the open air, and a less reserved intercourse amongst the community, with other causes to be related hereafter. How far this free communication is culpable, is not the subject before me ; but as the increased deaths appear in part to arise from thence, a more guarded intercourse would be equally humane and politic.

I believe every candid judge, who is conversant with the subject of discussion, will admit that much more caution and reserve are used by those who practise inoculation, than by those who have the management of the natural small-pox. In the former, public and private hospitals are erected for the reception of the inoculated patients; in the latter, this precaution is notoriously neglected. This also affords a striking proof, that it is not by inoculation, but by the new method of treating the natural small-pox, &c. that the infection is so much more generally

propagated, although inoculation hath undergone the blame.

In this view of the matter, it will appear consistent in the faculty to encourage the known and certain means of escaping danger; at the same time to avoid injuring others is incumbent on every individual; and this may be done without returning to the ancient exploded practice. M. de la Condamine's representation may be here recollected: The small-pox may be compared to a river, across which mankind must pass: Inoculation is expressed by a boat, which may be used as a means of safely passing over this river: many, however, neglecting this conveyance, plunge into the waters and struggle with the dangers of a new element. To the beautiful simile of the late amiable Condamine, we may add the motto of an eminent divine to his book in favor of inoculation: "*I will ask you one thing; Is it lawful to save life, or to destroy it?*"

It is not the method of treating the small-

small-pox only, that hath undergone a very considerable revolution, but that of managing many other diseases also, particularly those which have been marked by their fatality amongst the human species. These improvements in medicine, joined with those which respect the internal policy of this metropolis, have been the means of preserving many lives to the community, whereby more persons are since undoubtedly liable to undergo the small-pox.

In the nurture and management of infants, as well as in the mode of treating lying-in women, the reformation hath equalled that of the small-pox; by these two circumstances alone, incredible numbers are rescued from the grave, which must consequently augment the proportion of those, who in all probability will receive the small-pox, and add to the number of deaths by that disease, unless inoculation be timely interposed.

It may be suggested, that this improvement in the management of children is
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limited principally to the genteeler stations in life : this surmise must, however, appear ill founded, if it be considered what numbers of infant poor are now actually saved by modern charitable institutions ; that, besides the Foundling Hospital, and the public and private charity-schools, two institutions, called Dispensaries, relieve alone, in this metropolis, upwards of 5000 sick children annually ; if only one tenth of these objects be preserved to the community, in consequence of timely assistance, the amount of redeemed children is 500 annually ; if these take the natural small-pox, at an average of one death in seven, then 41 more persons in 500 will die every year by this disease than would have done, had not these useful charities existed ; but, provided these children had been inoculated, according to the fairest calculations made in this kingdom, one only would have died, or 40 children out of every 500 would have been added to the community : of what importance, therefore, would

would it be to government to interpose, in order to promote the salutary means of saving lives, by the more general institution of inoculation. Many children of the healthy laborious poor would thereby be preserved to the state, who, for want of proper advice and other necessaries, become tame spectators of a fatality which might so easily be averted.

Within the space of a few years, many lying-in hospitals have been established; in the lying-in charity alone, near 5000 women are delivered annually at their own houses, by persons well instructed in the necessary branches of business, whereby not only many infants, but likewise many women, are saved, who live to the benefit of the state by producing a succession of children, who, thus redeemed, live to undergo a new calamity, the small-pox, unless they embrace the salutiferous aid of inoculation.

Were the considerations already produced of no force in this dispute, let us reflect

reflect upon the present mode of conducting inoculation, and we shall find that very few persons undergo this operation in the metropolis, as hospitals or houses of reception are constructed in the neighbourhood of it from five, to five and twenty miles distant. This, if not a decisive argument against the probability of inoculation producing the increase of burials in London, is at least a very presumptive one in point. Had the calculations of the objector been drawn in those country places, where thousands of persons have been inoculated, their force must have been acknowledged; but as they now appear, little, very little stress can be laid upon them. It is even a doubt with me whether more persons were not inoculated in this city thirty years ago, in the days of Dr. Jurin, than at this period; when the improvements in practice at once dictate to the practitioner, that the person to be inoculated should have a country residence: in the days of Dr. Jurin, Claudius Amyand, and M. Mait-

Maitland, inoculated no less than 147 persons in about two years ; and, I presume, it will be difficult to find two surgeons, who now inoculate so many out of hospitals, in the same space of time, in this city. How improbable then is it to suppose inoculation to be the cause of the progressive increase of deaths, when experience itself suggests, that the town air should be avoided, and a country residence adopted, during the progress of the artificial small-pox !

Had the ingenious commander of the regiment of Aquitaine, the Chevalier de Chastelluz, been better acquainted with the internal policy of this city, and the vast accession of young persons it annually receives from the country, he would have proved a more powerful antagonist to Dr. Raft ; and were this objector, who finds it so difficult a task to account for the increase of 19 deaths in 1000, more than formerly, to consider this accession from the country, he would rather admire at so
small

small an increase; because those persons who come from a distance where inoculation is less usual, and the small-pox seldom appears, are more frequently the victims of the small-pox, than of inoculation; and how to avoid this disease, and avert its fatality, in a commercial city like London, where an universal communication takes place, can only be effected by such an excommunication from the public, as is practised in the plague; or what I presume is infinitely preferable in a free trading city, by inoculation; for which the partiality of relations, and the very dictates of humanity, would strongly plead; as thereby a loathsome, and often fatal, disease is passed through with little pain, and almost with certain success: while, on the other hand, the shocking effects of the natural small-pox are not unfrequently more dismal than death itself; add to this the anxious pain which a person, who has never had the disease, perpetually suffers.

If

If we inquire into the number of persons, of both sexes, who annually quit the country for a town residence, the opinion I have just suggested will appear well founded: new roads have been opened, and every method of facilitating an intercourse with the metropolis has been used; this progressive communication rationally accounts for the gradual increase in the proportion of deaths in London, which, with the gradual improvement in practice, are undoubtedly causes for which inoculation, that happy medium of preventing this fatality, has been stigmatized.

Dr. Perrot Williams, who wrote in 1725 upon inoculation, which was soon after its introduction into England, plainly proves, that it had been practised in Wales, though in a form somewhat different, for time immemorial: this I adduce as one proof of the little intercourse then subsisting between the country and the metropolis, that, for so long a period of time, such a practice should

should have been unknown in London. At this period, an hundred stage coaches would have conveyed such a novelty from the most obscure corner of Great Britain.

I feel, therefore, a genuine satisfaction in defending a practice which humanity dictates, which success authorises, and which true policy would promote. Let us then distinctly mark the cause of this fatality complained of: if the improved method of treating the natural small-pox be this cause, prudence should dictate more reserve; but humanity should at the same time ever determine the faculty to endeavor to save life, by such means as are known to be most conducive thereto.

If it be impracticable to stop the progress of a disease in a free city, where every individual acts according to his own pleasure; let us attempt to obviate the danger by encouraging inoculation, and save our fellow-creatures who come fresh, vigorous, and full of blood, from the country, and
con-

consequently prove the victims of a disease that spares neither sex nor age.

That the inhabitants of this country have increased since the introduction of inoculation, is a fact very generally received; the principal cause of which may be deduced from this practice, as no other cause seems so probable.

Northouck, in his accurate history of London, lately published, observes, that "The gradual enlargement of a city enriches all the country round it, and extends its demands to the remotest corners; it also affords employment for all the supernumerary useless hands that resort to it; which sufficiently accounts for the objection often made against the healthiness of London, notwithstanding all its late improvements, where the deaths so greatly exceed the births. A person not knowing this fact, might with a little reflection infer it; multitudes who were born in various parts of England end their days in London; and numbers of the in-

O habitants

habitants of London, being dissenters of several denominations, no register of their births appears, while that of their deaths is generally recorded. If it be replied, that London nevertheless appears to be a gulph that continually requires filling, it should be considered, that it not only receives, but sends out, inhabitants to various parts; America, and the East-Indies, particularly."

"Business and pleasure also keep many of the inhabitants in a state of celibacy; laborers, servants, sailors, and the three regiments of guards, are generally single men. Rapin expressed his fears, that the head was too big for the body; but the natural circumstances of countries will always prescribe limits to the growth of cities, while no others can be fixed. London, vast as it is, still enlarges; how long this increment may continue, cannot perhaps be foreseen; but it may safely be predicted, that when the augmentation becomes

becomes injurious, it will, like all other natural evils, correct itself."

" Though the operation of trade has caused a progressive increase of the metropolis from the first, yet this increase has been accelerated during the last thirty or forty years, from a cause well known, though little thought of in this point of view, and which has affected other towns as well as London. It is found, upon an average, that the natural small-pox destroys one in seven: it is now above forty years since this disorder began to be inoculated upon prepared bodies, of which the bishop of Worcester, in his celebrated sermon on this subject, informs us, but one in 500 were found to die: hence, in every 500 children inoculated, seventy lives are preserved to society, though few reflect how much this circumstance must advance population."

These reflections are farther confirmed by the author of the Monthly Review, vol. xlv. p. 15, 16, where he remarks:

“In the bishop of Worcester’s sermon on behalf of inoculation of the small-pox, which was preached near nineteen years ago, (and which, in its tendency, is worth all the poems that have been fabricated since, to go no farther back,) it is stated, that of those who take the small-pox casually, one in seven is found to die; and that of 1500, inoculated by the surgeons, Ranby, Hawkins, and Middleton, three only miscarried, one in 150. Now, not to mention that the hazard is by long experience since reduced almost to nothing, according to this computation, which has never been invalidated, in every 500 persons inoculated, seventy lives are preserved to society. Let the computation be extended to the probable number inoculated every year in this island, from the time when the practice began to obtain generally; and to these add the posterity derived from the marriage of these redeemed persons, as they advance to maturity, and we shall find a positive

tive and happy increase of people continually rising up, and staring out of countenance all declaimers against the practice."

From all the calculations, hitherto made in the country towns, a gradual increase of inhabitants is evident. Dr. Percival, who has just favored me with a piece he designs for the Royal Society, has found, by accurate surveys made by Mr. Enfield, that Liverpool has doubled its inhabitants in 25 years, and has at present upwards of six times the number which was in it at the beginning of this century. In Manchester, it appears also, that the increase of population is very considerable, as well as in some other towns where accurate registers have been kept, and surveys made of the inhabitants. After which Dr. Percival adds, " that the
 " late improvements in medicine have been
 " highly favorable to the preservation of
 " life. The cool regimen in fevers and in
 " the small-pox, the free admission of air,

“ &c. have certainly mitigated the violence,
 “ and lessened the mortality, of some of the
 “ most dangerous malignant distempers to
 “ which mankind are incident.”

From the foregoing considerations we may conclude, that policy, as well as humanity, strongly urges the propriety of inoculation; that, as it is the means of saving the lives of our friends, our children, and our relations, it is one of the principal causes of the increase of inhabitants in this country; and therefore as a man, as a subject, as a fellow-citizen, and as a parent, I think it my duty to defend and promote a practice, which tends to public good, population, and health.

SECT.

S E C T. V.

Method of treating the confluent
Small-Pox.

TO the foregoing defence of inoculation, it may be added, as a melancholy truth, that numbers of the most healthy and vigorous part of the youth, are victims to the natural small-pox; and although a method of obviating this fatality by inoculation is put into our hands, many, from various motives which demand our indulgence, are still deterred from embracing so salutary a medium. The faculty, who are placed as the guardian angels of health, can but advise those under their protection; compulsion is not their prerogative: but duty and humanity call them to relieve the af-

flitted in every calamity; and none to which the human body is liable, can be more affecting to observe, or more difficult to cure, than a bad kind of the small-pox: we see, with no less horror than pity, a friend, a relation, no more the same; and pathetically exclaim with the poet,

———Thou poor, pale piece

Of out-cast earth, in darkness—what a change!

YOUNG.

It has been my lot to undergo this melancholy experience; and I doubt not but many more can recall with sorrow the memory of an intimate friend, or a dear relation, hastily snatched from them by this disease; and have likewise been witnesses to the most piercing groans of others tortured beyond expression, who have cried out with agony, Oh that I had been inoculated! but alas, the conviction arrives too late, and they become silent monuments in favour of inoculation.

Under

Under many circumstances of this kind, it often happens, that medicines cannot be taken; and indeed I have tried, without effect, the usual methods of relief; air, bark, and antiseptics, having proved insufficient to avert the stroke of death:

Hæret lateri lethalis arundo,

VIRGIL.

This first induced me to endeavor to find other remedies more efficacious, as every man must be pained to recommend to the next patient he visits, what proved ineffectual in a preceding case, although authorized by antiquity and eminent moderns; and if the method I have adopted do not appear sufficiently established by facts, I presume the importance of the suggestion may merit the future inquiry of the faculty at least.

* C A S E

* CASE I.

In the summer of 1772, in company with a celebrated inoculator, I attended a relation, who died after bark and antiseptics had been freely exhibited, and exposure to air adopted.

* CASE II.

21. In the subsequent August of the same year, I attended Ann Taylor, a sucking child of 13 months old, whose parents resided near Holborn-Bridge. This infant was covered with the small-pox; on the eighth day of the eruption, the pustules were very small, depressed, pale, and running into each other; the pulse was 150, the tongue furred, and so considerable a dyspnœa was present as threatened instant suffocation. She had not sucked or taken any kind of food for ten hours; the urine was diminished, and what she passed was of a chocolate color; convulsive twitches became more and more

more frequent, and the child was in perpetual restlessness and agony.

My friend, J. Farmer, an apothecary of reputation, attended with me, and after concluding, that there appeared very little probability of the child's surviving many hours, in the usual method of treatment, the following was adopted. As the infant had been costive, a laxative clyster was immediately given, and

R magn. alb. grana octo; calomel grani dimidium; sacch. alb. grana octo; fiat pulv. quintis horis repet.

One scruple of mercurial ointment, double the strength of the ung. merc. fort. was rubbed into each leg this evening, and the same quantity on the succeeding morning.

24. We found the pustules enlarged amazingly, the child had passed two or three stools, and began to take food with less difficulty of breathing; it slept pretty quietly in the night, and the mother observed,

served, that the ointment was absorbed soon after it was applied.

25. Last night she had some rest; a few of the pustules began to turn, particularly where the ointment had been applied; this was the 10th day, and little fever was evident; she had one stool since yesterday; the same medicines were repeated.

26. The secondary fever seemed moderate; she slept well, and took food; the medicines were continued.

27. She was free from much fever, and the pustules, where the ointment had been applied, were dried up; this being the 12th day, I thought it unnecessary to be so frequent in attendance, particularly as it was agreed to push the mercury no farther.

On the 29th the fever returned with considerable violence, a dyspnæa also succeeded, and the child died on the 31st.

Although this proved a fatal case, it evidently evinced the utility of the mercurials;

curials; if timidity had not deterred us from continuing the course first entered upon, the child might probably have recovered, as in the first instance it seemed to have raised it from the dead, although no salivation appeared to have been excited by the mercury. It occurred to me also afterwards, that this remedy would have been greatly assisted by the additional use of bark; and I was therefore determined not to lose sight of what seemed to promise so much in the most dangerous state of the small-pox, and in preparing subjects for inoculation.

* CASES III and IV.

I had early opportunity of trying the effects of mercurial applications in two children, my own daughter, and the only child of my friend William Blyden, Esq; of Tortola, who was sent from the West Indies to be inoculated. — Both these infants took calomel internally for about
a week,

a week, commencing immediately after being inoculated; during which period, I likewise ordered one arm of each to be anointed with strong mercurial ointment twice a day; my view herein was to discover whether mercury acted as an antidote, or not, to the variolous virus. The arms thus anointed did not inflame, or shew any pustules, while the others had a favorable eruption with considerable inflammation; but upon applying some of the ointment upon them, the inflammation abated, and the pustules dried up without suppurating: this success stimulated my inquiries, as I had often observed that the inflammation arising from inoculation was almost intolerable, producing both restlessness and fever, particularly in children, who are apt to throw about their arms.

CASE

* CASE V.

I had still some suspicion, that the effects of the mercurial ointment might depend upon the unguent more than upon the mercury; and this doubt I had occasion soon to clear up to my satisfaction. A boy about 8 years old, just arrived from the West Indies, was put under my care. After a mercurial preparation during a week, in consequence of his poor state of health, he was inoculated in both arms; to one the mercurial ointment was applied, and to the other arm a cerate of bees wax and oil; in the former case no inflammation appeared, but in the latter it was considerable till the mercurial ointment was applied, and then it quickly subsided, and no fever succeeded.

Having ascertained this point, I inoculated my patients with much more confidence, as the inflammation and fe-

ver

ver were thus abated, if not totally prevented.

* CASE VI.

The next subject I inoculated was a child of a gentleman in St. Thomas Apostle's. After a short preparation both arms were inoculated; and as soon as the inflammation evinced that the infection had fully taken place, I ordered mercurial ointment to be applied night and morning, about an inch or two round the punctures as in the preceding cases: the inflammation was soon mitigated; the pustules where the ointment was applied, never suppurated, but soon died away; and little or no fever came on, although several pustules appeared over the surface of the body.

* CASES

* CASES VII and VIII.

Towards the conclusion of the same year, two young gentlemen from the West Indies arrived in town, in very indifferent health; the viscera of one seemed particularly diseased, the belly being hard, swollen, and unequal. I was, however, so confident in the method of treatment proposed, that, after a fortnight's preparation, they were both inoculated, and the mercurial ointment was applied upon their arms: not above ten pustules came out upon each gentleman; and the most unhealthy has since emerged from his indisposition, and now enjoys good health and spirits.

Every other subject I have since inoculated, has escaped favorably; which I have reason to attribute to this method of applying mercurials, as no instance has yet occurred to me, where any complaint the least alarming has supervened.

In the young subjects that had been inoculated, I never gave mercury so as to affect the mouth; it was unnecessary, and I was doubtful what effects it would produce. When the natural small-pox proves fatal, it is often attended with ulcerations in the throat, which probably extend down the bronchia, and thereby hasten the catastrophe; it occurred to me, therefore, that mercury, by being determined to the glands about the throat, might accelerate this baneful symptom; but when I recollected, that mercury appeared to act as an antidote to the variolous virus, my fears vanished, presuming that this mineral might prevent or relieve an ulceration there from the small-pox, as effectually as it does a similar complaint from the venereal virus. I considered at the same time, that the hacknied notion of assisting nature, though in many instances requiring restriction, might in the present admit of considerable latitude: there is scarcely a writer on the small-pox,

pox, but relies upon the spontaneous salivation, as a sheet-anchor in the confluent kind ; and this encouraged me to attempt procuring, by artificial means, what nature confirms to be a most salutary discharge, although she is sometimes unable to excite it.

It had also been objected to me, that as mercury dissolved the blood, it might augment the symptoms of putrescency, which arise during the secondary fever : but this objection had less weight, as I knew mercury had no such effect in the body ; on the contrary, during the time I attended St. Thomas's Hospital, I had bled near 50 persons under salivation, and in every person who had taken mercury about three weeks, the blood was remarkably fizy. I considered it rather as one of the most universal stimulants in the materia medica, and that it might therefore prove beneficial when the system appeared sinking under the confluent small-pox ; and I had an early instance of de-

termining, soon after I came into the General Dispensary, how far my theory was founded upon fact.

CASE IX.

William Bullard, of Aldersgate-Street,
aged 26.

On the first of May I visited this patient, being the eighth day of the confluent small-pox. I found him in a close confined room, out of which the air was as much as possible excluded; and, in spite of all my intreaties, I never could persuade the friends of the poor patient to take him out of bed, or to admit a freer accession of air: this I introduce to shew, that the remedies applied had every obstacle to oppose. The face had acquired a cadaverous aspect; the small interstices betwixt some of the pustules were also pale; and the pustules which had run into each other, were so flattened, that their convexity was depressed

pressed into a concave; the pulse was 135, but distinct; the breathing was extremely laborious, and total suffocation seemed approaching; the face, which had been swollen, was sunk, and the slight salivation which had commenced the day before, was intirely suppressed, and every other evacuation in degree; the urine was passed very sparingly, and the patient had not had any stool for a week, nor enjoyed any sleep for two days and nights: his feelings he could not relate, as he was incapable of speaking, and had not for twelve hours before asked for any thing, nor taken any nourishment; he was, indeed, a most dismal object. I ordered that small beer, porter, milk pottage, and good wine whey, should often be put to his mouth, that some little nourishment might if possible be swallowed; his medicines were,

R infus. sen. unciam, tertiis horis sum.
donec responderit.

R mist. acid. mist. anod. ana p. ℥, m.
capiat unciam ter die.

℞ pulv. deobstr. grana quind. om. nocte.
 ℞ ung. merc. fort. scrupulum singul.
 crurib. applic. mane & vesp.

3. He had enjoyed several hours of rest, and drank about a quart of different fluids; his face looked less cadaverous, and began to enlarge; and a slight salivation had come on again: he now spoke a little, though not very clearly; the pulse was slower and more full, and the breathing less laborious, but he had not yet had a stool; the urine was however greatly increased, and the symptoms in general less alarming.

Statim injic. enema solut.

℞ Inf. fen. fescunciam, tertiis horis sum.
 donec responderit.

Repet. mist. acid. & mist. anod. ut antea.

Repet. ung. merc. & pulv. deobstr.

4. The patient had had four or five dark colored offensive stools, and the salivation was very copious, as well as the discharge of urine; the pulse was not lower, but in quickness only 120;
 the

the pustules were more full, and the interstices fresh or red colored; he slept pretty well, and took near a gallon a day of the above drinks, particularly he was desirous of good small beer; the breathing was very free, and the voice less faltering and indistinct.

Repet. mist. acid. & anod.

Pergat in usu ung. merc. fort.

Repet. pulv. deobstr. ut antea.

5. The salivation was amazingly copious; but the strength increased, and every symptom appeared more favorable; the pustules were turning upon the face; he was again costive.

& pulv. deobstr. ut antea.

& ol. ricini fescunciam, mist. cath. uncias sex, m. cap. fescunciam alternis horis donec responderit.

6. Stools had been procured; and this day the patient was taken out of bed, for the first time; the pulse was only 100, and no fever present; but the sa-

livation was surprizingly great; the patient again saw day-light.

Repet. pulv. deobstr. ut antea.

R decoct. peruv. uncias sex, mist. acid. uncias duas, m. sumat unciam tertiis horis.

8. This was the 15th day, and no fever was evident, but the salivation continued copious.

He began to walk about the house, and complained of hunger. From hence I discontinued my attendance, and all medicines were left off, except the peruvian decoction and acid mixture.

His salivation, he afterwards told me, continued for the space of a week; but as he attributed his recovery to that discharge, he underwent it with pleasure. It may be observed, that the exhibition of bark was postponed, till the danger was over; this I purposely did, that I might ascertain the utility of mercurials given in the foregoing manner; the success flattered me, that I had adopted a plan which might prove of the utmost importance
in

in the worst kinds of the small-pox. My friend Thomas Tracey, an ingenious apothecary, in George-Street, was an eye witness to what I have related in the foregoing; and his pleasure as well as his surprize, upon the recovery of this extraordinary case, was equal to my own.

Throughout the latter part of the disease, the patient never complained of much soreness in the throat; a symptom which, as I have remarked, the celebrated De Haen, and other practical writers, often deem fatal in the natural small-pox; and which might have been greatly promoted by the determination of mercury to the glands of the throat, had not this mineral possessed the same antidotal quality to the variolous virus, as it appears to do to the venereal virus.

* CASE X.

But a case that has since occurred to me, has cleared up any doubt which might be entertained

entertained against the mercury augmenting the tendency to ulceration in the throat, in the small pox. About a week since I visited a child in my neighbourhood, aged nine years, of a delicate constitution, in company with my valuable friend J. Baxter, apothecary, in Great Eastcheap: this girl had been liable to a sore throat, of the malignant kind, for some years; upon taking cold, and, in her late indisposition, this disease was suspected, till the small-pox made its appearance; when I immediately ordered a grain of calomel every night, and on the third or fourth day afterwards the soreness, before complained of, vanished; the calomel, however, was continued till the small-pox turned; but the soreness of the throat never recurred again.

Several hospital physicians of eminence have remarked, that during their practice they never knew any patient, who took the small-pox when under a mercurial course, but had it favorably; and whilst I attended

St. Thomas's

St. Thomas's Hospital, several patients had the small-pox under this circumstance, but always mildly, though in the putrid air of an hospital.

CASE XI.

Not long since a poor diseased object, laboring under strumous complaints, was under my care in the General Dispensary; and to her I gave mercury so freely as to produce an incipient salivation: at this period she had the small-pox, but in the most favorable manner, and much to the relief of all her former ailments; the pustules turned on the sixth day; which I have observed to take place in all those patients, who have been prepared in the manner which I propose to communicate more fully in a future essay; some children being now under such preparation, by the direction of a gentleman of character in his profession.

* CASE

* CASE XII.

My friend, J. Howard, who has been particularly conversant in inoculation, has informed me of a case which lately came under his observation. A person, who underwent a severe salivation for several complaints, was exceedingly reduced in his strength; and notwithstanding the free use of mercury, a bubo, which was one of his symptoms, did not heal, but spread, and put on a phagedenic appearance; in this situation he was attacked with the natural small-pox, which he had in the most favorable manner.

He was so relaxed by the mercurial process, that the bubo continued in a bad state, for some time after his recovery from the small-pox; at length, however, he got well of the former disease also.

CASE

C A S E XIII.

The following case, which was communicated to me by Mr. Slater, resident apothecary to the General Dispensary, is so important, and was so happy in its conclusion, that I am induced to relate it.

Elizabeth Nelson, a healthy but gross young woman of 19, shewed signs of a very profuse eruption of the small-pox; after which she took four grains of calomel every night for nine or ten days, when the eruption began to change upon the face, and the secondary fever came on with dyspnæa, and a rattling noise in the throat; and several large gangrenes appeared in different parts of the body: but the next day a ptyalism came on, and continued copiously through the progress of the disease; and in a fortnight she was restored to health.

The apothecary, besides calomel, judiciously administered other remedies: during

ring the inflammatory state, he gave cooling emulsions and laxatives, and ordered the patient to get out of bed, and to be exposed to the air; in the secondary fever, he omitted the calomel, because of the salivation, and substituted bark, elixir of vitriol, and a more cordial diet.

Two children, who lived with E. Nelson, were prepared with mercury previous to their receiving the small-pox; they had the disease favorably, and the pustules turned about the sixth day, a circumstance I have before intimated.

* C A S E XIV.

Captain Freemantle, of Virginia-Street,
East-Smithfield.

Dec. 1773.

I visited this gentleman on the tenth day of the confluent small-pox, under which he appeared gradually sinking: the spitting that had come on a day or two before, had totally subsided for twelve hours; the pustules were sunk considerably,

rably, and turned "pale as ashes," without any redness betwixt the interfices, which here and there appeared; the face was sunk, and looked cadaverous; the eyes had been closed about five days; he had not slept for some nights, nor had he passed a stool for a week before, although he had taken much nourishment, and continued still to take a little water gruel; he was frequently delirious, and constantly restless and disturbed; with these alarming symptoms, the pulse was distinct, and did not exceed 130 in a minute. The room, in which he lay, had been secured against the admission of air, although the tortured patient, as often as dyspnæa and a faltering voice would admit, repeated his prayers for a breath of this vital fluid. I immediately saw the windows opened, and ordered him to be taken out of bed, and to drink plentifully of wine whey, porter, and small beer: the medicines prescribed were,

R decoct. cort. peruv. fescunciam.

Tinct.

Tinct. cort. peruv. spir. drachmas duas
& semis.

Spir. vitr. ten. gut. x. ft. haust. tertiis
horis repetend. nocte dieque.

R calom. grana dua cum semisse.

Spec. arom. gran. dimid.

Sacch. alb. semi-scrupulum; m. fiat

pulv. tertiis horis sumend.

R aq. alex. simpl. drachmas x.

—— — spir.

Syr. e mecon. ana drachmam unam.

Tinct. theb. gut. sex.

Spir. vitr. ten. gut. x. fiat haust. hor.

Hom. sumend.

As I considered that much depended
upon speedily exciting the salivation, as
well as destroying the variolous virus by
some antidote; I judged it necessary to ap-
ply mercurial ointment to the neck and
jaws; but at the same time I was desirous
that the friends of the patient should not
discover a medicine, which the vice of the
age has rendered so familiar; I therefore
ordered this ointment to be laid upon flan-
nel

nel by the apothecary, and applied, thus prepared, round the neck of the patient.

Dec. 18. I had the pleasure to find that a slight salivation had commenced; the patient had slept well, and expressed his agreeable sensations, from the admission of air, with uncommon rapture; his restlessness was allayed, and his senses restored; the face was increased, and the interstices betwixt the pustules looked more red and fresh, and the pustules themselves were a little elevated, some about the mouth and chin appeared brown, and began to dry; the breathing was free, and the pulse not exceeding 120.

The patient had drank about a pint of wine whey, as much porter, and several draughts of small beer, besides gruel and fops. He had not yet had a stool, although a clyster had been injected; but the abdomen was not hard, nor had the patient any complaint to make.

Repet. haust. anod.

Repet. haust. peruv.

Q

Repet.

Repet. pulv. mercur. cum calom. granis tribus.

The same diet, and likewise another collar prepared with mercurial ointment, were ordered; and the patient was directed to take 30 drops of spirit of vitriol now and then in his slops. To remove the constipation, an opening mixture was prescribed:

R Inf. fen. limon. uncias quatuor.

Tinct. fen. semi-unciam.

Tart. solub.

Syr. ros. fol. ana drachmam, m. cap. coch. com. dua tertiis horis donec responderit.

Dec. 20. The medicines had not procured a stool; but yesterday and the day before the spitting had rather increased, and he had had some sleep. He now breathed rather less free than at my last visit, and the salivation was nearly stopped, but the feet were more swelled; the pulse was not above 110: he complained of soreness, and was very restless; he had

had refused his former medicines, but was prevailed upon to take the following draught:

R pulv. jalap. semi-drachmam.

Tinct. sen.

Syr. é spin. cerv. ana drachmam unam.

Aq. alex. simp. unciam, m. fiat haust.
statim sumend. & vesperi repetend. si interea non descenderit alvus.

Statim inj. enema.

The repetition of mercurial ointment upon flannel had been neglected; for which I was the more concerned, as, during the two days that he used the mercurial preparations, the symptoms which presaged the worst catastrophe, were greatly moderated: it may be observed here, that the mercury could not, in so short a space of time, produce any considerable effect; but although this may be acknowledged in part, yet it should be considered, whether any other medicine would have operated sooner, or more powerfully, to answer the indications

pointed out by the symptoms, and by the operations of nature, in the cure of the confluent small-pox; indeed no medicine could avail without submission on the part of the patient to apply it.

Dec. 21. From the purgative draught, he had three stools, but the symptoms were not mitigated; the salivation was not restored, though the fever was very moderate, and the freshness in the interstices between the pustules remained; the breathing, however, was more laborious and short, similar to what takes place in a peripneumony; the pulse was irregular, but not very quick, and the senses appeared clear; he drank often, and the hands and feet continued swelled; last night he got very little sleep. As he refused to take any medicines, and the friends to encourage it, I ordered only a blister to be applied to the back.

Dec. 22. The patient died.

I admit that the foregoing cases are insufficient fully to establish the practice I have

have suggested above ; but they appeared of so much importance, that I thought it incumbent upon me, to lay them before the public, in hopes that future inquiries might enable the faculty to ascertain their validity with more certainty.

* CASE XV.

Although the following case doth not fall within the year prescribed for these Memoirs, yet it is so connected with the present subject, that I thought it necessary to stop the press, till the event of it should be ascertained.

W. Barlow, of Bache's-Row, Hoxton,
aged two years.

This infant shewed signs of the small-pox on the sixth of April 1774 : on the 10th I first visited him, and found him in a situation which afforded very little prospect of his surviving many hours ; the

pustules were numerous and confluent, and although this was the eighth day since their first appearance, they were depressed and pale; the pulse was 160; the breathing was laborious and short, like what usually takes place previous to the fatal expiration; he was restless and insomnolent, and had just struggled through two convulsive fits. Besides the variolous symptoms, he had a hooping cough, and at the same time complaints arising from teething. My friend, J. Webb, who had attended this child, had enjoined a prudent antiphlogistic diet, and admission of air, from the first appearance of the small-pox; but as these did not appear sufficient to avert the danger which threatened the child, I thought myself the more justified in immediately adopting a deviation, which in a few instances has already proved so flattering; I imagined, however, that other means of relief, besides mercury, should be likewise admitted, and that not only the dyspnæa, but the pertussile symptoms,

toms, should be moderated, and I therefore ordered the following :

Quamprimum applic. empl. vesicat. pectori.

R calom. levigat. semi-granum,

Magnes. alb. grana quinque, fiat
pulvis mane & vesperi repetend.

R decoct. cort. peruv. uncias tres,

Elix. paregor. guttas quadraginta,

Tinct. canthar. guttas quindecim, m.
detur, coch. comm. ter die.

Applic. ung. merc. fort. scrupulum
singul. crurib. omn. nocte.

16. The breathing was rather less laborious; the blister had taken effect; the child had passed two dark colored offensive stools, and the legs were a little swelled, though the face continued depressed; the pulse was rapid, and the convulsions were frequent.

Repet.

17. The face seemed rather more swelled, but a slight swelling of the hands, which arose yesterday, disappeared; the hooping was less frequent, and the phlegm,

or mucus in the throat, seemed more free, though the child never spat up any matter; the other symptoms were very little varied. To promote the swelling of the hands, I ordered turnip poultices to be applied to them.

Repet.

18. The hands swelled from the poultices applied in the morning, but the child would not suffer them to be repeated, and a sudden diminution of the swelling took place; the difficulty of breathing increased again, and one or two convulsive fits ensued; five offensive stools were passed to day, but the pulse being rather less frequent, I did not attempt to stop the diarrhæa. The blister on the breast was ordered to be dressed with ceratum mercuriale; to promote the swelling of the lower extremities, a blister was applied to each leg, and the following bark mixture was given;

R decoct. peruv. uncias quatuor.

Syr. balsam. drachmas duas, m, capiat

fiat coct. com. unum quintis
horis.

19. The pustules were now become full and plump; and some on the face, and where the ceratum mercuriale had been applied on the breast, as well as where the unguentum mercuriale had been rubbed on the legs, were beginning to turn; no convulsive fits had this day come on, but several purging stools so weakened the patient, that the following draught was prescribed; and the legs which had been swelled, were ordered to be dressed with the mercurial cerate, instead of the application of unguentum mercuriale.

R. julep é creta semi-unciam,

Elix. sudor. guttas quindecim, fiat
haustus sumend. hor. somni.

Pergat in usu mistur. peruv.

20. No convulsions had ensued, but the breathing was still somewhat laborious; the feet were very little swollen, and the pulse was only 140. A weak mustard
poul-

poultice was applied to the sole of each foot.

R aq. alex. simpl. uncias duas & semis.

Elix. paregor. guttas viginti,

Syr. balsam.

Aq. nucis mosch. ana drachmam, m.

capiat cochlear. infant. ter die vel
urgente languore.

Repet. mist. peruv.

21. As I now imagined that a sufficient quantity of mercury had been received into the system, I interdicted its further use. All the dangerous symptoms were milder, and therefore I continued the mist. peruviana, and the paregoric mixture; and the poultices, which had inflamed the feet, were removed.

22. The breathing appeared less difficult; but as the child was again costive, I ordered the following :

R mag. alb. grana octo,

Aq. pur. drachmas sex,

— Nuc. mosch. semi-drachmam,

Syr. balsam. scrupulum,

Elix.

Elix. paregor. guttas quindecim, fiat
haustus hora decubitus sumend.

Repet. mist. peruv.

Repet. mist. paregor.

23. The breathing was free, and the
scabs began to fall off, particularly where
mercury had been applied.

Repet.

24. The child continued to recover;
and besides the peruvian and paregoric mix-
tures, the opening draught was repeated.

From my first attendance I recommend-
ed a cordial diet, such as good small or
table beer, and wine or wine and water;
and, indeed, during the whole progress of
the secondary fever, the infant took very
little besides these liquors, except Seltzer
water, which I ordered to be given occa-
sionally, with a view to correct the putre-
fcent symptoms, by the fixed air which it
contains.

Whether mercury possesses an antidote
quality to the variolous virus or not, can-
not be determined without farther expe-
rience;

rience; but this case, with some others I have mentioned, renders it very probable. It certainly stimulates, strengthens the system, raises the pulse, and thereby resists putrescency; its external application may likewise prove beneficial by its stimulus, as appeared to be the result in this patient, when the ointments were applied to the legs. I have, however, observed, that the mercurial ointment obviated the inflammation arising from inoculation.

SECT.

S E C T VI.

Remarks on the Hooping-cough, Kink-cough, or Pertussis.

THOUGH much has been lately written upon the hooping-cough, the subject seems still involved in as great obscurity as when Dr. Burton published his "Essay on the chin-cough", (^k) in the year 1738; the mode of treating this disease being more indeterminate than, perhaps, in any other that occurs so frequently, and terminates so often fatally.

One of the latest writers (^l) upon the hooping, or kink-cough, has labored assiduously to prove, that all preceding methods of treating it were erroneous; and, if this
be

(^k) Printed at the end of his treatise on the non-naturals.

(^l) Butter on the kink-cough.

be admitted, the faculty must still lament their ignorance, as the unhappy effects ^(m) of this author's favorite remedy, are sufficient to reprobate its use altogether; besides the injuries it produced, we find no very evident instance of its success related by its patron; and therefore, since the perusal of his own cases, I have never attempted *his hemlock* ⁽ⁿ⁾.

To a person disposed to enter into theoretical disquisitions, the spasmodic disease I have now before me, affords an extensive scene: but my principal view in these Memoirs, is to give a just recital of facts; I shall, therefore, endeavor to avoid speculation, and simply relate some cases which have come under my own observation, after introducing a brief account of the remedies ^(*) generally used to obviate the whooping-cough.

Of

^(m) See his account of Toplis, page 131, and also page 116.

⁽ⁿ⁾ Preface to the same, vii & passim.

^(*) I have purposely omitted to mention change of air, as its utility is so universally admitted.

OF BLEEDING.

Dr. Millar (°), president of the Medical Society of London, has collected with particular accuracy, the principal authorities upon this evacuation, and added his own opinion against its admission: the very writers, however, which Dr. Millar hath quoted against bleeding, have recommended it under certain restrictions: Dr. Burton expressly declares, in case of convulsion “ I then am “ forced, in order to gain time, to take “ some blood, otherwise I would never do “ it;” and Dr. Lieutaud recommends it “ when the fever is high, and the breathing “ laborious (p).” On the other hand, Willis (q); Sydenham, Astruc (r), Huxham (s),
Home

(°) Observations on the whooping-cough, chap. 3. p. 140.

(p) Essay on the whooping-cough, page 349.

(q) Synopsis Univers. praxeos medicæ, p. 494.

(r) Diseases of children, p. 141.

(s) Observat. de aere & morbis epidemicis, tom. 1. p. 76, 105 & passim.

Home (⁽ⁱ⁾), Sauvages (^(u)), Hillary (^(v)), Biffet (^(z)), and other physicians (^(y)), lay considerable stress upon the advantage of bleeding in this disease.

The reasons also which the ingenious author of the "Observations on the whooping-cough," has produced against letting blood in this complaint, appear equally to militate against vomiting and laxatives, evacuations which he has afterwards recommended (^(z)): "with what propriety" then (says he) can evacuations be employed to obviate evils, which only arise when the powers of nature have been exhausted by a tedious illness, or by improper management? (^(z))"

With nearly the same propriety this question might be applied to a pleurisy,
or

(⁽ⁱ⁾) Principia medicin. page 122.

(^(u)) Nosolog. method. tom. 3. p. 157.

(^(v)) Diseases of Barbadoes, p. 46.

(^(z)) Medical Observations, Newcastle 1766.

(^(y)) Forbes de tussi convulsiva, Edinb. 1754 Animadversiones on a late treatise on the whooping-cough, p. 52.

(^(z)) Observations on the whooping-cough, p. 180.

(^(a)) Ibid, page 1.

or an inflammatory fever, when the patient has been exhausted; but this is no just argument against bleeding in the commencement of these diseases, or of the whooping cough, where the symptoms indicate inflammation.

This disease very rarely appears without a cough having previously existed for some days or weeks, and hence it will be less necessary to take away blood from infants already weakened; but there are instances where children, of a considerable degree of strength and health, have been attacked by the whooping cough, which hath been early accompanied with fever, hæmorrhagy, contractions of the extremities, pains in the breast, hard pulse, and bloated face, indicating congestions in the vessels; under which circumstances, I presume, no reasonable objections can be urged against venæsection, proportioned to the strength of the patient, and the violence of the symptoms.^(b) R

Although

(b) My view in this publication, was chiefly to lay before

Although many children have expired under the hooping cough, yet few dissections have been related by authors. Morgagni, in his immortal work, *de causis & sedibus morborum*, has not introduced one evident case: Lieutaud, indeed, in his *historia anatomico-medica*, (c) has collected many dissections of fatal coughs, in most of which the viscera were found inflamed, or in a state of suppuration, particularly the lungs and the liver; which dangerous circumstances might probably have been prevented by early blood-letting, before the hectic symptoms (d) had been excited; but where the urgent

fore the public such facts as have occurred to me during the last twelve months; in this period, I confess the cases of hooping cough in general, which came under my observation, were such as did not appear to require bleeding; the disease having continued long in most of them before I was consulted, and the patients being much exhausted thereby. I have, however, seen numerous instances wherein evident relief has succeeded venæsection.

(c) Vol. ii. p. 438.

(d) The peruvian bark has been given with the happiest

gent symptoms, I have already hinted at in this disease, do not indicate bleeding, we ought to be sparing of the vital fluid.

I have been just informed of three unfortunate cases of the whooping cough; in one a suppuration had taken place in the lungs; and in the other two, there was considerable inflammation on the coats of the lungs, with remarkable adhesions to the pleura, (°) though the trachæa was little affected. (†) Had not bleeding been

R 2 indicated

piest effect, in the hectic fever, agreeable to Dr. Millar; with me it has not always been so happy. See his observations, page 179. In a hectic fever, excepting the antiphlogistic diet, Dr. Fothergill, whose observations are founded upon long experience, lays the principal stress on repeated bleedings. *Med. Inquiries*, vol. iii. pag. 319.

(°) The ingenious author of "animadversions on a late treatise on the whooping-cough," observes, that "when the parents thought their children getting better, death convinced them of their mistake, by closing the scene with all the symptoms of a spurious peripneumony." page 41.

(†) My ingenious friend Charles Combe, F. A. S. informed me, that he lately dissected a patient who died of
the

indicated in these cases? so the dissections I have seen, (^s) and those (^h) related at the conclusion of this section would infer.

Of VOMITING.

Every writer of eminence, who has professedly treated upon the whooping cough, has admitted the utility of vomiting; indeed it seems to be the natural cure; and, therefore, by promoting this operation, we assist nature to throw off an offending accumulation of phlegm or mucus in the throat.

Upon this subject, the principal doubts to be ascertained are, what emetic is the most easy and efficacious? and at what

the whooping cough, and found the pleura unaffected; the trachæa also was very little diseased, but the ramifications of the aspera arteria were greatly inflamed; and the farther he followed these ramifications, the more considerable the inflammation appeared.

(^s) Vide Case 15.

(^h) Vide Case 26. 27.

periods

periods of the disease, and how often it is indicated?

If the experience of authors may determine the first question, the preference is undoubtedly due to antimonials, the repeated use of which has sometimes alone been sufficient to stop the progress of this disease (¹).

The time and frequency of exhibiting this remedy, will be regulated, in great measure, by the quantity of phlegm or mucus with which the patient appears to be loaded; and by the strength of the system, upon which it is to operate. When the disease has subsisted long, and induced considerable debility, a repetition of vomiting has rather augmented than mitigated it; and in such cases I have seen occasion to prefer the use of rhubarb and other mild laxatives. Indeed, throughout the whole progress of the hooping cough, particular attention should be paid to the

(¹) Medical observations and inquiries, vol. iii. p. 319.

state of the bowels, to prevent any putrid or offensive accumulations in them, which tend to keep up the disease, and to aggravate the most urgent symptoms.

Where the strength and other circumstances will admit the operation of vomits, their occasional exhibition may contribute to the cure by evacuating the morbid secretions, and emulging the bronchial glands; and their efficacy in this disease, has been already investigated by a physician ^(k) of distinguished abilities, whose diffidence upon the subject gives him additional lustre, and leaves me more at liberty to observe, that, from the efficacy of a composition I shall describe, the action of vomiting is less necessary to be so frequently excited, as the disease usually terminates in a few days after the exhibition of this remedy; and hence I have seldom had occasion to repeat the

(k) Vide medical obs. and inquiries, art. xxx. by Dr. Fothergill, vol. iii. pag. 319.

antimonial (1) more than two or three times.

Of BLISTERS.

The same reasons which indicate bleeding in the hooping cough, are equally applicable with respect to blisters; as, besides the oppressed breathing, and the fever, it appears, by dissections, that a considerable inflammation is sometimes excited in the thoracic viscera, and particularly in the pleura and tunic of the lungs. The general practice of physicians likewise confirms their utility, as no writer upon the subject has objected to their application, under proper restrictions; and I have sometimes known a single blister to remove the disease, without any other

(1) This powder recommended by the doctor is made of emetic tartar and pulv. e chel. cancror. but to prevent a decomposition of the antimonial by this absorbent, saccharum album might be substituted for the latter; or the amyllum, as in the pulvis febrifugus of the Dispensary.

R 4

remedy;

remedy; but whether this salutary effect arises from the blister as a topical application only, or principally from the cantharides conveyed into the system, (^m) may admit of some doubt. I cannot avoid considering a blister to be salutary in both respects, as its topical application removes spasm, and takes off inflammation, which I have supposed frequently occurs in the thoracic viscera; and the cantharides also, when received into the system, produce some salutary operation conducive to the recovery of the patient, a topic I shall hereafter resume.

Blisters, however, should always be applied as near as possible to the parts affected; and, in this view, the application to the sides or to the breast, will be made more efficacious than to the back, as the least knowledge of anatomy must plainly point out.

(^m) See Hewson's ingenious experimental inquiry into the lymphatic system.

Of PERUVIAN BARK, &c.

As the paroxysms of the whooping cough recur at certain periods, or are succeeded by intermissions of shorter or longer duration, the use of the bark would doubtless be early suggested in the cure of this disease; and, accordingly, we find it recommended by most practical writers: but experience has evinced its inefficacy in numerous instances, which has given rise to so many other remedies, and particularly of late to the cicuta.

When hemlock was first recommended by Dr. Butter, it was surprizing to see with what avidity that vegetable was prescribed in the whooping cough; which clearly demonstrated, that little dependance had been placed upon the bark. Experience also proved the inutility of hemlock; all the cases I have alluded to wherein it had been exhibited, being unfavorable to its reputation, as had before been
the

the result in most of those related by Dr. Butter himself.

In the year 1738, Dr. Burton of York, with whom I was personally acquainted, published his essay on the chin-cough, at the end of his treatise on the non-naturals; wherein he says, "I ordered a scruple of cantharides, and as much camphor, which, when well mixed, I ordered to be mixed with three drachms of the extract of bark, of which mixture I gave the children eight or ten grains every third or fourth hour, according to the circumstances of the cases, in a spoonful of some simple water or julap, in which I had dissolved a little balsam copaivi; the children's drink was emulsio communis, or the like. By following this method, I performed the cures very soon, some in five or six days."

This method of cure Dr. Burton had adopted, after he had tried the bark alone without the same effect; and though the propriety

propriety of his theory may not be admitted, I would consider how far his practice has sustained the test of succeeding experiments, the only criterion which should give sanction to any remedy employed in the healing art.

Soon after this publication appeared, the hooping-cough became frequent in the neighbourhood of Settle, in Yorkshire; the disease, therefore, engaged the attention of a Surgeon-Apothecary, resident in that town, whose distinguished character and reputation will add weight to the observations I shall make upon this subject, and with whom I had the happiness afterwards to reside.

Abraham Sutcliff, the gentleman I allude to, found the mode prescribed by Dr. Burton extremely troublesome to children, who are the usual victims of the hooping-cough; this induced him to adopt the following form, without changing the qualities of the remedies employed :

R

℞ Tinct. cort. peruv. fescunciam,

Elix. paregoric. femi-unciam.

Tinct. cantharid. drachmam, m.

This was given in small doses, three or four times a day, which were gradually increased, till a slight strangury was excited; and then the dose was diminished, or taken at more distant intervals. The strangury usually came on about the third day; and the hooping seldom continued above six days from the first exhibition of this medicine. Though it sometimes succeeded without exciting any strangury, it generally produced its salutary effect sooner, when that circumstance came on, whether the bark was joined with the cantharides or not.

During twenty years experience, this ingenious practitioner has almost uniformly continued the use of this medicine, with the most flattering success; under his tutelage I was a witness of it; and from numerous instances which have since occurred

curred to me in this city, I have seen no reason to interdict its use.

Universal experience confirms this fact, that no one remedy is adviseable in every stage of a disease: to say a medicine cannot do harm in a violent disease, is to say it can do but little good: it is, therefore, not my view to recommend the indiscriminate use of the composition I have described; for it must be evident to every man of judgment, if there be any truth in what I have said under the heads of bleeding and blisters, that some evacuation will be in general necessary, previous to the exhibition of this remedy, which a person qualified to engage in the important office of restoring health, must determine according to the present exigencies of the case before him. Suspence, however, should not induce any to postpone so long as to have occasion to lament, “*post est occasio calva.*”

A mode of practice somewhat similar to that I have just related, has been adopted,

I find, by others, with like success: the author of the animadversions on Dr. But-
 ter's treatise : says, " For my own part, I
 " have in some measure followed Dr. Bur-
 " ton's method in the first stage of the
 " disease, except that, instead of cantha-
 " rides, I have chosen antimony as an at-
 " tenuant ; and I have given laudanum in
 " very small doses for the purpose already
 " mentioned. The rule is, to give as much
 " laudanum as will lessen the cough, with-
 " out suppressing it entirely ; one drop I
 " find is commonly enough for the pur-
 " pose, taken in the space of 24 hours,
 " by a child of half a year old ; two drops
 " in one of a year old ; three drops, two
 " or three years old ; four drops, four
 " years old, &c. but it is not necessary to
 " continue increasing the dose according
 " to the age of the patient ; a less quan-
 " tity, in proportion, being sufficient,
 " which is probably owing to the very
 " irri-

“irritable state of young children.” (*)

In the year 1769, Dr. Millar published his judicious observations on the asthma, and on the whooping cough; in which the exhibition of assafoetida was principally recommended; and the internal use of cantharides objected to in the latter disease, as being “strongly stimulating,” for which reason the doctor substituted the following external application:

R olei laurini unciam unam,

Tinct. cantharid. drachmas duas,

Camphoræ drachmam unam,

Olei olivar. q. s. f. linimentum.

In the beginning of the present year, 1774, the whooping-cough had become very frequent. In conversation with my learned friend, who so deservedly fills the chair as

(ⁿ) Page 51. I have given thebaic tincture in this manner very lately to several children in the whooping-cough, but with very little advantage; and when the bark composition has afterwards been exhibited, early relief has resulted.

When hemlock relieves the pertussile symptoms, it is probably by its sedative effect, like the laudanum above-mentioned.

Pre-

President of the Medical Society, I communicated to him the method I had found so successful in this disease: he complimented me so far as to say, that, upon such recommendation, he would try the internal use of the cantharides; and, from his extensive practice, he had early occasion to ascertain its efficacy, as he was consulted in five cases soon after, all of which soon recovered with the internal exhibition of this medicine: in two of these instances, he has since assured me, that the salutary effects of it were very soon perceptible (°).

I introduce these facts with peculiar pleasure, not only on account of their importance, but likewise for that liberality of sentiment, which Dr. Millar evinced upon this occasion: unfettered by preconceived notions, he was willing to take experi-

(°) Neither bark alone, nor opiates alone, succeed so well as the composition I have mentioned; in some few instances, the *tinctura cantharidum*, given alone, has soon removed the hooping fits.

ment and fact for his preceptors, and admitted the use of this active medicine as unbiaſſed as if he had never been the author of a different mode of practice.

Although I have experienced the moſt flattering ſucceſs in the whooping-cough, from the combination of the cantharides with bark, and the paretoric elixir, or ſome other ſedative, for the ſpace of ſeveral years; I was yet deſirous of learning how far the maturer obſervation of the ingenious practitioner I have already mentioned, as the author of this formula, corroborated my experience: for this purpoſe I ſent him the following queries, to which he obligingly condeſcended to write me the annexed answers, with ſome caſes and reflections.

Qu. What are the moſt dangerous ſymptoms in the whooping-cough?

Anſ. “ The moſt urgent ſymptoms, I
“ have obſerved, are febrile pulse, laborious
“ reſpiration, ſwelled and bloated
“ face, and convulſions, which generally

S

“ In-

“ indicate bleeding and laxatives.”

Qu. 2. Does bark, when exhibited alone, cure the disease?

Ans. “ I have not often used the bark
“ alone; and have reason to believe it
“ rarely succeeds; and, when it does, it is
“ very slowly.”

Qu. 3. Has the paregoric elixir alone ever obviated the whooping-cough?

Ans. “ I have not used this medicine
“ except in convulsive cases, and then in
“ small doses only; and, I apprehend, it
“ would not obviate the accumulation of
“ viscid phlegm, or mucus, in the throat.”

Qu. 4. Is not the decoction of bark preferable to the tincture?

Ans. “ I never tried the decoction; and,
“ it is probable, that the resinous part of
“ bark is preferable.”

Qu. 5. Does the composition of bark, cantharides, and paregoric elixir, page 256, cure the whooping-cough, when no strangury is excited? Or has the strangury any

any salutary effects in removing this disease?

Ans. " Gum arabic has sometimes been
" given to prevent the strangury, and yet
" the medicine cures. I consider the stran-
" gury, where nothing is given to prevent
" it, as the criterion, that the blood is
" sufficiently stored with the particles of
" the cantharides."

Qu. 6. Has any injurious effect been excited by this internal use of the cantharides?

Ans. " I never knew any bad or permanent effects whatever."

Qu. 7. Do the cantharides sometimes prove cathartic?

Ans. " I recollect no instance of that effect."

Qu. 8. Does a spontaneous, or artificial purging, augment or diminish the disease?

Ans. " When considerable it increases
" the disorder, and disposes to convulsions."

Qu. 9. Does spontaneous, or artificial vomiting, mitigate or increase the whooping-cough?

Ans. " The cough in many children
" produces vomiting, and these usually
" pass easier through the disease. I have
" not used emetics very often; but they
" seem useful, when the patient is not ex-
" tremely weak and irritable."

Qu. 10. What are the most effectual means of obviating the convulsions, which sometimes ensue?

Ans. " When convulsions are present,
" or expected, I give musk, with calomel,
" so as to keep the intestinal tube open.
" In plethoric habits, bleeding should be
" prescribed; in others, however, it should
" not be admitted. I never tried bli-
" sters."

Qu. 11. Do not spasmodic contractions frequently arise in this disease?

Ans. " Spasmodic contractions arise fre-
" quently in delicate constitutions."

Qu. 12. How soon does the whooping-
cough

cough cease, after taking the remedy or composition described ?

Ans. " The whooping generally ceases in
" three or four days, from the first exhi-
" bition of the medicine : sometimes the
" paroxysm recurs only once after the first
" dose ; but an expectorating cough fre-
" quently continues for a week or two af-
" terwards."

Qu. 13. Do opiates prove useful in any stage of the whooping-cough ?

Ans. " I have seldom had occasion to use
" opiates ; but, when administered, they
" compose the turbulency of the nervous
" system. I have chiefly used the parego-
" ric elixir."

Qu. 14. Does the semicupium moderate the violence of the symptoms ?

Ans. " I never tried the semicupium."

Qu. 15. Is the free admission of air injurious or beneficial ?

Ans. " My patients are never restrained
" from exposure to air ; it proves beneficial,

“ if not too rigidly cold. Probably riding
“ on horseback might be useful ”

“ I never yet saw an unsuccessful event
“ after using the composition of bark, can-
“ tharides, &c. having never lost a patient
“ in the whooping-cough. The following
“ cases I shall relate, being those only that
“ ever occurred to me wherein this for-
“ mula did not succeed : in the last, indeed,
“ the bark was not tried.”

* C A S E I.

“ J. S. a boy aged two years, in February
“ 1769 was attacked with the whooping-
“ cough, which for upwards of a week
“ continued so moderate, that no medical
“ assistance was procured, till suddenly a
“ violent convulsion ensued : he was then
“ immediately bled in the foot with a lan-
“ cet, to the quantity of two or three
“ ounces, and his legs were kept for some
“ time in warm water ; this fit, however,
“ con-

“ continued, and he lay almost as dead,
 “ for half an hour ; as soon as he was ca-
 “ pable of swallowing, the julepum e mos-
 “ cho was given. When he was fully re-
 “ covered from this paroxysm, the bark,
 “ cantharides, and paregoric elixir, in the
 “ usual proportions, were exhibited ; but
 “ for the three or four succeeding days he
 “ had as many fits, though much less se-
 “ vere and permanent ; on the third day
 “ he was bled with leeches.”

“ As I suspected the tincture of cantha-
 “ rides might disagree, from the irritation
 “ it might produce, he took it very spa-
 “ ringly, that no strangury should be ex-
 “ cited ; and, although the convulsive pa-
 “ roxysms vanished, the cough continued
 “ for upwards of a week longer. I then
 “ gave the extract of bark in solution, a-
 “ lone ; which soon appeared to suit his
 “ habit, which was naturally relaxed, and
 “ now farther debilitated by illness and
 “ evacuations. His cough gradually sub-
 “ sided, his strength increased, and in a
 S 4 “ month’s

“ month’s time he regained his usual
“ health.”

* C A S E II.

“ A. W. a girl about three years old,
“ of a thin delicate habit, had been ill of
“ the hooping-cough about two weeks
“ when I was first consulted ; it recurred
“ regularly every two hours, and after each
“ paroxysm, she labored for breath for up-
“ wards of half an hour, as if almost suf-
“ ficated ; owing, I apprehend, to a spas-
“ modic or convulsive disposition, as fre-
“ quent twichings were excited in diffe-
“ rent parts of the body : towards evening
“ the pertussile paroxysms, and the dyspnæa
“ were aggravated, and a delirium usually
“ supervened ; the pulse became very quick,
“ and the fever violent. I first ordered the
“ following powders :

“ R pulv. rhei gran. quinque,

“ Tartar emetic. granum dimidium,

“ m. dividend, in chart. duas, capiat

“ unam hora somni & mane.”

“ This

" This was continued for three days, by
 " which the body was kept soluble, and
 " a vomiting excited once a day at least ;
 " the febrile symptoms abated, and this
 " induced me to prescribe the mixture of
 " bark, cantharides, &c. but no benefit re-
 " sulted ; on the third day after using it,
 " the fever returned, though with less vio-
 " lence ; this mixture was therefore o-
 " mitted ; and a small dose of emetic tar-
 " tar, so as just to puke the patient, was
 " daily exhibited ; and small doses of calo-
 " mel and rhubarb were occasionally given
 " as laxatives : by this treatment the child
 " recovered in little more than ten days."

* C A S E III.

" A child, about one year old, at San-
 " with-hall, near Settle, had been attacked
 " with the hooping-cough a few days be-
 " fore I saw it ; when it was seized with
 " such a paroxysm of hooping, that for a
 " considerable time I did not expect it could
 " have

“ have survived another. After the fol-
 “ lowing applications, no other pertussile
 “ fit of any consequence ensued, and in
 “ eight days the child appeared well ; the
 “ medicine was then omitted : the child
 “ is still living.

“ R tinct. cantharid. sesquidrachmam,
 “ Elix. paregor. drachmam, m. ca-
 “ piat guttas quindecim ter die.”

“ R empl. commun. cum gumm.
 “ Gum. styrac. liquid. ana, drach-
 “ mam, f. emplastrum (camphora
 “ in oleo anisi soluta illitum) tho-
 “ raci applicandum.”

I shall now briefly relate a few cases of the whooping-cough, which have lately fallen under my own observation. Many more I attended who passed favorably through very severe attacks of this disease, by the plan of treatment already hinted at ; whom I had not an opportunity of seeing daily, so as to give with any accuracy the different changes they underwent in emerging from disease to health ; the number of which
 amount-

amounted to about forty more than those I shall describe in this section.

Amongst these pertussile patients, I attended two that died, who evidently appeared to expire under pulmonary consumptions; but the parents of one would not suffer the child to be opened: it had a narrow confined chest, and, from infancy, had been liable to cough, fever, and hectic complaints. The case of the other I shall relate more particularly on account of the dissection; vid. Case 15.

C A S E IV.

George Davis, a boy about five years old, was admitted to the Dispensary, Jan. 10, 1774. About three days preceding he was first attacked with severe fits of coughing, which in a day or two was accompanied with a hooping, though not to any considerable excess: as he appeared in other respects in health, I ordered

R

℞ pulv. eccopr. gran. quinque alternis
noctib.

℞ mist. sperm. nitr. drachmas tres ter
die.

I saw him again about a week afterwards, with the hooping cough much aggravated; the fits recurred seldom less than twelve or fourteen times a day, and usually terminated with violent discharges of blood by the mouth and nostrils; his fever was considerable, and the pulse quick; but having a pale complexion, and having also been restless many nights, I omitted bleeding, and prescribed,

℞ pulv. febrif. gran. quatuor, singul.
noct.

℞ decoct. peruv. uncias quatuor, el. sudor. drachmas duas, tinct. canthar. scrupula dua, m. capiat drachmas tres ter die.

In the space of two days the hooping abated much, and in three days subsided; the cough was very trifling, and the hæmorrhage

hage intirely ceased ; and on the 21st of February he was discharged, cured.

CASE V.

George Phillips, aged four years and an half, had labored under a hooping-cough about two months, previous to his admission into the General Dispensary, on the 18th of January 1773 : the disease which came on almost every hour of the day, was aggravated with fever, great heat, and restlessness ; the paroxysms of the cough usually terminated with violent reaching, and some discharge of phlegm ; in general he was disposed to costiveness.

R pulv. eccoprot. semi-scrupulum alt.
dieb.

R tinct. peruv. spir. drachmas duas ter
die.

These medicines were continued till the 27th, with some little mitigation of the symptoms ; he then took,

R

℞ pulv. febrifug. gran. quinque alt.
dieb.

· Tinct. peruv. spirit. unciam, elix. sud.
drach. duas, tinct. canthar. scrupul.
dua, m. capiat drachmas duas
ter die.

The pulv. febrif. each time excited copious vomiting of tenacious bilious matter, which appeared greatly to relieve his complaints; on the fourth of February the cough and fever disappeared, and the disease hath not returned.

C A S E VI.

A sister of the last mentioned child, about six months old, had the hooping-cough at the same time, under very similar circumstances; and by the remedies prescribed the 27th of February, taken in proportionately less doses, she recovered in the space of four days from the first exhibition of them.

Some children in the same court, who had

had been attacked with the whooping-cough about this time, expired before any medical assistance had been procured, the parents not knowing how to apply to the Dispensary; the loss of whom I much regret, because I never yet saw the bark united with the elixir paregoricum and tinctura cantharidum, fail in effecting a cure of this alarming disease, if early exhibited, and after proper evacuations had been procured.

CASES VII and VIII.

Sally Aldridge, aged four years, and Elizabeth Aldridge, aged two years, were admitted to the Dispensary on the eighth of February 1774, for the whooping-cough, which they had labored under about three weeks, with fever, restlessness, and vomiting as often as the fits of whooping came on, which was usually every hour or half hour. As they had been costive, the pulvis eccoproticus was ordered for each; the eldest also took four tea spoonfuls,

fuls, and the youngest three, of the following mixture three times a day :

R mist. theriac. uncias sex, tinct. canthar. drachmas duas, m.

As I was desirous of trying the effect of the tinctur. canthar. this was continued till the 15th; but little alteration for the better was observable; though the phlegm was somewhat easier evacuated in the coughing. I have, indeed, seldom seen the tincture totally carry off the disease, without bark and some anodyne; but being desirous of ascertaining whether bark alone would succeed better, I ordered the same doses of the decoct. cortic. to be taken three times a day.

Feb. 22. Little, if any, mitigation had ensued since the 15th, though the bark was continued regularly; and the disease upon the whole appearing rather more serious than at my first attendance, I did not chuse to postpone any longer the following :

For

For Sally,

℞ mist. emetic. drachmas tres, statim.
℞ decoct. peruv. uncias sex, elix. sud.
drachmas tres, tinct. canth. scrupulum,
m. cap. drachmas quatuor ter die.

For Elizabeth,

℞ Mist. emetic. drachmas duas statim.
℞ mist. peruv. ut supra drachmas tres ter die.

Applic. empl. vesicat. sterno.

Feb. 24. The emetic mixture vomited freely; and this day I found both the infants much better; Sally particularly was nearly void of complaint, and both took food, and enjoyed good nights.

March 1. The children had not had any return of whooping; but the youngest had some cough remaining, on which account I ordered the dose of the mixture to be increased half as much more for her; the other required no medicine.

March 5. I found the youngest child

so well, as not to require my future attendance; the hooping had subsided, sleep had returned, and the appetite was almost natural.

C A S E IX.

Edith Ball, aged 18, of a delicate constitution, admitted February 10, 1774, was attacked about two months since, as well as two of her brothers, younger than herself, with the hooping-cough, to which the latter fell victims before the parents could procure relief. When I heard of this fatal catastrophe in the family, and the danger which threatened this surviving daughter, I immediately received her as a patient to the Dispensary: she had, at least, twelve paroxysms of the hooping-cough in the day; the nights were disturbed, the legs much swelled, with headach, suppressed menses, paleness of the countenance, indigestion, frequent vomiting, fever, and great debility; for which I ordered,

R

℞ pulv. eccoprot. semi-scrupulum alt.
diebus.

℞ decoct. peruv. uncias sex, el. sud.
drachmas tres, tinct. canthar. drach-
mam, m. cap. drachm. tres ter die.

Feb. 15. A slight strangury was excited by this medicine, but the same dose was continued; the cough was considerably abated, and the hooping never recurred after this day; the powder vomited, and likewise procured some stools, after which the febrile symptoms gradually vanished, but some nausea continued.

℞ pulv. febrif. semi-scrupul. vesperi.

Repet. mist. peruv. ut antea.

18. The powder vomited freely, and she now appeared well; the swelling of the legs, and other symptoms being removed. For greater security, the peruvian mixture was once more repeated, after having omitted it for a few days; and no disease hath since ensued.

C A S E S X and XI.

On the 17th of February 1774, I visited Ann Glyn aged four years, Mary Glyn aged three years, and John Glyn an infant, about eight months old, in the whooping-cough. The last had been ill near three months, and expired soon after I saw it, before any remedy could be administered (^P), which urged me to recommend immediately for the survivors a medicine I had so often found efficacious.

Ann had been ill of the whooping-cough about a month, which was become extremely violent and frequent, both by day and night, with insomnolency and fever; the pertussile symptoms, which recurred at

(^P) I understood that it had taken an emetic two days before its decease, which had both vomited and purged it considerably, afterwards it grew gradually weaker, with increased frequency of coughing: there are certain stages of this disorder, wherein evacuations in general, and especially when excited to excess, aggravate the symptoms of debility, and hasten the death.

least

least every half hour, were usually terminated by vomiting of phlegm, and sometimes of blood, with hæmorrhagy from the nose.

Mary was attacked nearly at the same time with her sister, but the disease was much more violent, and the paroxysms more frequent and permanent; at night particularly, instant suffocation seemed almost constantly to threaten her, and the family sat up for some nights expecting this tragical end; she was emaciated, restless and hot, with a quick pulse, and quick short breathing. At the termination of the paroxysms, she ejected a matter like pus, and considerably fetid.

They had been rather costive; and besides taking the following, they were ordered to have their feet bathed in warm water every night.

For Ann,

R mist. emet. drachmas quatuor, statim.

R decoct. peruv. uncias sex, el. sud.

T 3

drach-

mas tres, tinct. canthar. drachmam, m.
cap. drachmas quatuor ter die.

The same was prescribed for Mary, but to only take three drachms of each, instead of four drachms.

Vesperi applic. vesicat. pectori.

Feb. 22. The emetic had taken effect with both the children, and they appeared this day greatly relieved ; but as they continued costive, the pulvis eccoproticus was prescribed for each in proportionate doses, and the bark mixtures repeated.

Feb. 24. The opening powder had procured several evacuations, which the mother informed me resembled pus, more than common stools. They were now nearly without complaint, the hooping not having recurred for four and twenty hours with Ann, but Mary had still some cough with hooping remaining, though with much less fever : they both, however, took food, and slept better at night.

Repet. pulv. eccopr.

Repet. mist. peruv. ut antea.

March

March 1. Mary's cough was now very troublesome; the hooping, though much less frequent, recurred with aggravated violence; and in the fits the child became rigid from head to foot, as if all the muscles of the body were under a spasmodic contraction; the pulse was 150, with fever, restlessness, and insomnolency; the body was costive and much swelled.

Pulv. eccopr. femi-scrupulum, pro re nata.

Repet. mist. peruv.

March 5. The powder procured stools, and all the symptoms were this day much moderated, the hooping had nearly subsided, and the cough was likewise more moderate; the spasmodic fits had not returned since yesterday; but the appetite was weak, and the sleep disturbed.

8. Little complaint remained except debility.

A few days afterwards the mother brought these children to the Dispensary

in good health, and desired to have them discharged.

CASE XII.

William Garratt, half a year old, admitted February 26, 1774, was attacked in the beginning of this month with a cough, which was accompanied about a week afterwards with hooping, recurring at least every hour in the day, and at night being still more violent and frequent; in these paroxysms the child seemed to suffer much pain, as it screamed out as often as the pertussile symptoms returned, and for some time afterwards a rigidity, or spasm, seized the whole body: at length he refused food, slept little, and seemed in danger of instant death. I had seen, however, such instances of sudden relief in this disorder, as induced me to encourage the parents to administer the following:

R

R pulv. eccopr. gran. quinque statim.

R decoct. peruv. uncias duas cum semisse, el. sudor. femi-drachmam, tinct. cantharid. gut. x. m. capiat drachmas duas ter die.

Feb. 28. The hooping gradually subsided after taking the above, and this day the child never once hooped. It had a sprightliness and vivacity nearly natural, and took food, and slept better.

March 3. The cough had not returned since the 28th of February; and no complaint at present subsisting, the child was discharged.

Several gentlemen of the faculty, to whom I had related the foregoing method of treating the hooping-cough, attended the progress of this case, as well as some others I have already related, with the pupils of the Dispensary.

CASE

* C A S E XIII.

John Wyatt, aged five years, had been attacked with a cough at the beginning of February 1774, which after a week or ten days continuance, was accompanied with hooping; this gradually increased in violence and frequency, till the paroxysms returned at least every quarter of an hour, day and night: early in the disease, a bleeding at the nose, and a slight expectoration of blood frequently succeeded the hooping and strong efforts in coughing; he was, on these accounts, bled in the arm, with some little mitigation of the complaints. On the 26th of February I first visited him, in company with Surgeon Young, whose inquisitive disposition to ascertain the real efficacy of remedies, does him great credit. We found a considerable degree of fever present; the pulse was as quick as 148 in a minute, the breathing was confined and short, with a bloated

bloated face, and an emaciated body: he had taken emetics, and purgatives; but every evacuation seemed to aggravate the disease, in proportion as it weakened the body. The following was ordered:

℞ decoct. cort. peruv. uncias sex,

Elix. paregor. drachmas tres,

Tinct. canthar. drachmam, m. capiat
cochl. unum & semis ter die.

Feb. 28. On the 26th he took two doses of this mixture, and no bleeding at the nose, or expectoration of blood had since ensued; and we were informed that on the 27th he hooped less frequently than he had done for several preceding days, and appeared much more chearful; but he refused to take any medicine; except a preparation with squills, which the father administered; this purged the child considerably, and the complaints again returned with nearly their former violence.

Repet. mist. peruvian.

March 2. Since the 27th the child has regularly taken the bark mixture: at nights
he

he slept better, and the whooping-cough had nearly subsided ; yesterday it did not attack him at all, and to day it only occurred once. The body was regular, and the countenance more natural ; but the pulse was still very quick, and the fever violent : no strangury had yet been complained of.

Repet. mist. peruvian.

March 4. To day when I called the child was gone into the air ; I was, however, informed, that he seemed to be gradually recovering.

March 6. The whooping had not returned since the second. Some cough continued, but with less violence ; the countenance was more natural, and the appetite better.

Repet. mist. peruv.

R Pulv. rhei. grana octo hor. somni.

10. He was so well as not to require my attendance. I have since heard of the restoration of his health.

* C A S E XIV.

February 26.

J. Bicknell, 22 months old, had a cough about five weeks ago, which in the space of a week was attended with whooping, usually coming on every half hour at least, with fever and restlessness at night; the face was much bloated, though the child was greatly emaciated in the body, with short quick breathing, and frequent screamings, as if in great agony. On Feb. 26th, 1774, I first saw him, and then ordered the following:

R decoct. cort. peruv. uncias quinque & semis,

Syr. é mecon. drachmas duas,

Tinct. canthar. scrupula dua, m. cap.
coch. infant. j. ter die.

Feb. 28. He had three stools since the 26th, but they did not seem to have weakened him; he slept better, whooped less frequently, and seemed inclinable to take food.

March

March 2. The hooping was greatly diminished, the face less bloated, and the countenance more natural, with freer breathing, and more easy sleep. He had two stools a day; no strangury appeared to have taken place.

4. All the symptoms appeared more favorable, but the hooping recurred now and then; the appetite was good, and the strength not diminished.

10. The hooping seldom recurred, and the appetite was good, the breathing free, the face of its natural size and complexion, and the sleep refreshing with increasing strength. No medicine was now ordered, and I did not think it necessary to continue my visits.

CASE XV.

Edward Thompson, aged three years.

February 26.

About five months ago this boy had a troublesome cough, with laborious breathing,
fever

fever, and other symptoms indicating a hectic habit: about eight weeks since his cough was succeeded by hooping, which recurred several times a day, but more frequently at night; in some of the accessions it was so violent as to throw the child into convulsions, and into a state of insensibility for several minutes. In the space of a month these symptoms abated, and the convulsive fits intirely subsided.—The child was now taken into the country, where he continued about three weeks; and during his residence there, the disease became less violent and frequent. He was now brought into the city again, and in the journey was supposed to take cold; the complaints, however, returned, with aggravated violence, the pertussile fits coming on every hour in the day, and at night were still more violent. At the commencement of the disease he bled much at the nose, but had not since his return from the country; though his difficulty of breathing, fever, night sweats, and
other

other hectic symptoms, on his return to town, became as violent as ever. His pulse was low and quick, and in his paroxysms he was seized with spasms in the extremities, which continued rigid for some hours.

R pulv. eccoprot. grana quinque, altern.
noc.

R decoct. peruv. uncias sex,
Elix. sudor. drachmas tres,
Tinct. cantharid. drachmam, m. cap.
semi-unciam ter die.

March 1. The complaints were much diminished, and the spasms had almost subsided.

5. The cough continued, though with less violence, but no hooping had since recurred; and the spasmodic contractions were of shorter duration.

Applic. liniment. volatil. partibus spas-
mis correptis.

March 11. No hooping had returned; the contraction of the limbs had nearly ceased, and the child took food better.

Repet.

Repet. mist. peruv.

R Pulv. eccopr. semi-scrup. hor. fom.

15. The child was free from the whooping, and I expected the other complaints would likewise cease, but a cough was still troublesome, and the hectic symptoms did not diminish. I therefore gave the bark alone, and recommended a light vegetable diet, and that the child should be removed into the country. The diet was attended to, but the family continued in town; the hectic symptoms increased; a diarrhæa ensued; the child grew more and more emaciated, and death succeeded on the second of April.

On opening the body, the lungs appeared to be intirely composed of tubercles; the left lobe adhered firmly to the pleura, but no suppuration had taken place in the lungs, nor any evident disease in the branches of the aspera arteria. The pericardium was distended with an aqueous fluid; the liver was enlarged, in which were several small tubercles; the mesente-

U

ric

ric glands were likewise indurated; but the other viscera had no particular morbid appearance.

From the hectic symptoms having to long preceded the whooping-cough, and from the state of the lungs, &c. it was evident, that the whooping-cough was by no means the cause of death.

CASE XVI.

March 9.

Mary Smith, an infant, aged fifteen months, had a cough about a fortnight before it began to hoop; this was also neglected for a week before I was applied to; and to me it appeared too late to administer relief. The pertussile paroxysms had occurred more frequently than the hour; but, in consequence of debility, the child seemed unable to produce that action; it now refused food of any kind, except sparingly from the breast; febrile pulse of 150 in a minute, with hectic heats were come on, and the face
was

was surprizingly bloated ; the miserable infant was infomnolent, restless, and often seized with sudden startings, and slight convulsive twitchings ; the belly was hard, swelled, and costive. Under this prospect of approaching dissolution, I recommended the following treatment to be tried :

℞ pulv. eccoprot. grana quinque, statim
sumend. & alternis diebus repet.

℞ decoct. peruvian. uncias quinque,

Elixir sudorif. drachmas tres,

Tinct. cantharid. drachmam, m. ca-
piat cochlear. theana tria ter die.

Quamprimùm applic. vesicator. pec-
tori.

March 11. The strength seemed some-
what recalled, and the hooping had come
on again ; two stools a day had been
procured, and the belly was less tense and
tumid ; the face was more natural ; and the
child had slept better, and taken food much
more freely. The blister discharged.

Repet. mist. peruv. ut antea.

13. The child continued to take food ;

the whooping was less violent and frequent, but the sleep was still disturbed: the convulsive motions, however, were subsided.

15. The whooping had almost ceased, the sleep was more natural, and every appearance of returning health had taken place.

20. The child was discharged well.

CASES XVII, XVIII, XIX, XX, XXI,
XXII, XXIII, and XXIV.

March 16.

This day I visited a family in the whooping-cough, consisting of the following objects.

Thomas Brabham, aged 17 years, had been in this disease about four weeks; the whooping fits were violent, occurring every hour at least, and terminating usually by a copious expectoration of viscid phlegm; a vomiting also ensued after eating; the sleep was disturbed, the face bloated, and a considerable degree of fever was present, with night sweats, and great debility.

Besides

Besides the medicines hereafter to be mentioned, a blister was applied to the neck, and two leeches to each temple, which procured evident relief.

William Brabham, 14 years old, had been ill of the hooping-cough near two months; and, though it had doubtless been violent, no assistance had been administered; and he fell a victim to disease and neglect soon after I entered this miserable house.

Susannah Brabham, eight years of age, had been attacked with the hooping-cough about three months ago, and it still continued violent, with fever, expectoration of bloody matter, and vast prostration of strength; though the hooping was less frequent than it had been about a month ago.

Elizabeth Brabham, aged six years, was attacked with the hooping cough soon after Susannah: it had reduced her to the lowest degree of strength; the hooping was almost perpetual, with expectoration of

phlegm, and a considerable discharge of blood; the pulse was frequent, the face bloated, and the fever high.

Mary Brabham, a child of three years old, was not less reduced in strength by the whooping-cough than the preceding; and the duration and violence of the symptoms of the disease were likewise similar.

Flora Brabham, five years old, had the whooping-cough full as bad as her sisters, with a prolapsus ani, and a violent diarrhæa; a copious expectoration of blood was likewise discharged after the pertussile fits; her belly was hard, unequal, and enlarged, but the urine was not obstructed.

John Brabham, about twenty months old, had hooped near a fortnight; but, although the fits were frequent, no blood was ejected.

The family resided in Flower-de-Luce Court, Cow-Cross, a situation remarkably confined and filthy; the parents of these unhappy children were ill at the same time

time of nervous fevers; and in this distress, a girl was the only attendant, who was likewise severely attacked by the hooping-cough; I was therefore doubtful whether this whole family would not soon follow the deceased William I have just mentioned. I took care to procure some culinary succours for them, and ordered them to be daily conveyed into the air, near Islington.

They were each of them directed to take, two or three times a week, such a quantity of the *mistura emetica*, as would excite a mild vomiting; and, whenever they were costive, proper doses of the *pulvis eccoproticus* were given.

From one ounce to two drachms of the following mixture, proportioned to the ages of the patients, was prescribed, to be taken three times a day:

R decoct. peruvian. libras duas,

Elixir sudorif. fescunciam,

Tinct. cantharid. semi-unciam, m.

For several days afterwards I did not

see this family ; but some of the pupils of the Dispensary occasionally attended, and informed me of the favorable changes which ensued. I repeated my visit in the beginning of April, and found every patient free from the whooping-cough, and nearly void of complaint: the patients were also capable of attending their family, and returning health smiled upon these impoverished objects ; most, if not all of whom, were probably saved by this critical interposition.

The bark decoction alone was now ordered to be taken a few days longer.

Susannah Clarke, a girl, who as I have already mentioned waited upon this family, while she labored under the whooping-cough, likewise recovered by the use of the same medicines ; but as she had more strength, and complained of pain in the side, she was bled, which removed the pain, and greatly mitigated the whooping-cough ; and in less than a week she was so well as to relinquish farther assistance.

C A S E XXV.

Hannah Whitehead, aged two years, was admitted to the Dispensary on the 30th of March 1774. She had then a whooping-cough, which recurred usually about seven or eight times a day: in these paroxysms she sometimes expectorated; the face was bloated, and the abdomen swelled; a fever was almost constant at night, which, with the cough, allowed her very little sleep; a diarrhæa at length ensued, which, with the pertussile symptoms, reduced her to the lowest state of existence.

She was ordered to take,

R Pulv. febrifug. grana dua & semis
omni mane,

R Julep. e creta drachmam ter die.

This plan I attempted with a view to ascertain how far emetics alone were to be relied on; the result was, that the child, at the end of six days, appeared less likely to survive than at the first admission; and I,
there-

therefore, determined to postpone the bark composition no longer.

Repet. pulv. febrif. sing. diebus,
 & decoct. peruv. uncias quatuor,
 Elixir. sudorif. sesqui-drachmam,
 Tinct. cantharid. guttas xxx, m. ca-
 piat drachmas tres ter die.

The pertussile symptoms began to abate the next day, and no complaint remained on the eighth; the child then appeared vigorous, and of a healthful complexion.

The two following cases were communicated to me by a gentleman conversant in private, as well as hospital practice, with whose ingenious reflections I shall close this section.

CASE XXVI.

Margaret M'Donald, a child about three years old, was attacked with the whooping-cough in March 1772, and she had then labored a month under the disease. On the

the fourth of April she was worse, and became much emaciated, and the cough was almost insupportable, so that in each spasm her parents thought she would have been suffocated: the pulse was weak, and not so quick as might be expected from the age and disease of the patient, but this I attribute to the child's being worn out with fatigue; respiration was performed with difficulty the last week, but the belly was soluble and not large. As she had never been bled, three ounces were taken from her arm this day: a blister was applied to the stomach, and a draught, wherein were twenty drops of ipecacuanha wine, and ten drops of tincture of castor, was exhibited every four hours.

The bleeding instantly relieved her breathing; but this dawn of hope did not last long, for on the 15th, about ten in the morning, she died.

On examining the chest and abdominal viscera, the latter did not seem to have been inflamed; the omentum had but little

the fat upon it, and the spleen was longer than I think is usual in such young subjects: upon raising the sternum, the lungs were inflamed, and the right lobe adhered firmly to the pleura in every part, and the left in less degree, but it was smaller than the other considerably.—The substance of the lungs, allowing for inflammation, appeared in every other respect sound.

C A S E XXVII.

John Hinginbothom, a healthy boy of seven years old, had the whooping-cough in September 1773, which continued growing worse till the sixth of October following, when he had the misfortune to break his thigh: after proper surgical care was taken of the limb, I found the whooping-cough very violent, which gave me the more uneasiness, as I suspected the convulsive coughing would produce pain, and displace the fractured limb; and so it proved; his

his cough also grew worse, respiration more difficult, and on the eleventh he died.

He had never been bled till I saw him, when six ounces were taken away; his body was kept laxative by manna; he had a blister applied between the shoulders, and had oily draughts, with four grains of nitre in each, every six hours, for the first three days; after which, others made of spermaceti, with half a drachm of oxymel of squills, and ten drops of tincture of castor in each, were substituted. Upon opening the thorax, soon after he died, the lungs were remarkably large, and appeared as if inflated with wind; there were several adhesions to the pleura, particularly on the left side near the spine. The pericardium was very full of liquor, somewhat of the color of serum, separated from the blood of a bilious constitution; when the abdomen was opened, the intestines were not inflamed, and the liver was less tinged with bile, in the neighbourhood of the gall bladder, than I ever recollect to have seen,

but

but perhaps this might be owing to the body being inspected a few hours after death; he had a bubonocoele on the right side, but which I am certain was unconnected with the fatal disease, as the protruded interocoele was as little inflamed with blood as any other part of the intestinal tube.

Neither of these cases will, I presume, forbid bleeding in the first stage of the chin-cough; and, I assure you, for these ten years past I have been very partial to that operation, as I have seen much benefit result therefrom; but, when the malady continued eight or ten weeks, phlebotomy, if not injurious, appears to have been of little service.

In young children, when the arms are fat, it is sometimes impracticable to let blood from that part; under which circumstance, I would attempt to open the external jugular, which will not be attended with the difficulty that is generally supposed, especially after a surgeon has performed
the

the operation three or four times.—I have not seen many die of the whooping-cough, strictly speaking, and very few, *cæteris paribus*, out of the number that have been bled, at its commencement; but numbers are carried off by its consequences, and which are sometimes owing, I doubt, as much to the physical treatment as the disease.—May not the evacuating antiphlogistic regimen, with the abstemious diet generally enjoined here, give rise to universal debility, *marasmus*, and the more flow, but as certain in its effects, hectic *scrophula* in some constitutions?

SECT.

S E C T VII.

Medical Cases and Reflections.

IN the foregoing sections I have endeavored to lay before the public, faithful histories of such cases as fell under my immediate observation ; and to collect, with particular care, those that proved unfortunate in their event, as nothing seems better calculated to promote the knowledge of medicine, and furnish matter of instruction, “ than the relation of unsuccessful attempts, or even errors in the cure of diseases.”

The following cases being unconnected with the subjects already discussed, I have placed them together here ; and, though they may not exhibit any thing remarkable or uncommon in their appearance and mode of treatment, I presume they will
not

not to be deemed useless ^(*), or the manner of relating them prolix.

* C A S E I.

An ulcer, of a cancerous appearance, cured with the use of Hemlock.

Towards the beginning of the year 1773, a woman of about forty years of age, residing at Stratford, consulted me on account of a tumor that appeared a few years before in the left breast, and had gradually spread into an ulcer of a cancerous aspect, which discharged a thin ichorous matter, and excited violent lancinating pains through the mamma, and in the neighbouring parts. In every other respect she enjoyed pretty good health, excepting the languor and atonia, which resulted from the acute pain, and foetid discharge. Although I entertained very little expectation of curing the cancer, I nevertheless recommended the

(*) Vid. Bacon de aug. scient. l. iv. cap. 2.

liberal use of hemlock, as affording more flattering prospects than any other medicine I knew of. The ulcer was often bathed with an infusion of hemlock, and she took about half a drachm of the cicuta powdered every day, for about a fortnight, when I again saw her: I found that some mitigation of the pain in the breast was perceptible, and that the ichor was more digested, and of a better consistence.

But as I had known hemlock ineffectual, after it had at its first application promised success, I could not avoid suspecting the present advantage as merely temporary and specious; I, therefore, advised her to consult my valuable friend, Surgeon Wathen, as a man of more extensive information and experience, who condescended to examine the diseased breast very particularly, and encouraged the patient to persevere in the use of the cicuta, till he had an opportunity of speaking to me upon the subject; and,

and, in the mean time, gradually to increase the dose of the medicine to about two drachms a day.

The next time we met, another plan of treatment was determined upon betwixt us, but as the patient had attended at my house, I was unable to procure her address, and therefore no alteration was adopted.

About three months afterwards she called to inform me of her perfect recovery; and her health, as I have lately learned, continues uninterrupted.

Upon my own judgment, in this case, I should have placed less reliance; but when a surgeon of eminence, no ways interested in the event, had given his opinion that this ulcer was cancerous, I could not hesitate joining my assent; and from some familiarity with similar cases, during my attendance as a surgeon in St. Thomas's hospital, I presume we were not mistaken.

While she used the powdered cicuta, the infusion, or tea of hemlock, was drank

once or twice a day, and the same was frequently applied to the diseased breast; as, I think, I have seen evident benefit result from the external use of this vegetable. I am not averse to confess, that hemlock often proves ineffectual in cancerous diseases; but till we are assured of something more successful and innocent, we should not totally explode an article from the *materia medicâ*, which sometimes cures when no other can be depended upon: though it be not adequate to the bias of its patron, Dr. Storck, of curing almost every cancer, it cannot be reprobated as effecting nothing.

Whenever the powder can be procured, it should be preferred to the extract, this being more liable to change by keeping, as well as less certain in its dose; both which are avoided by exhibiting the powder: why the faculty so generally prefer the extract I am not able to assign a reason.

The suggestions likewise which have been urged in its favor, that it has not always

ways been collected at the most favorable period for obtaining its virtues, does not seem ill founded ; which the following case of a physician at Leyden, communicated to me by himself, may tend to corroborate.

* C A S E II.

A cancerous ulcer under the tongue
cured by hemlock.

J. B. medicus, 33 annos natus, autumnno 1764, ex Galliis Lugdunum Batavorum venit. Ad ulcus sordidum in crure dextro, quod 1757 in exercitu Russorum chirurgiam exercens, contraxerat, delendum exemplo Boerhaavii inductus, adhibet urinam propriam (conf. la vie de M. Boerhaave par de la Mettrie). Ulcus in fine Dec. 1764 disparet. In fine Januarii 1765, cito sub lingua oritur tumor cancrusus. Extirpatur hac die, 11 Feb. 1765, sedes sanatur. Medio Martio malum recrudes-

cit, & tumor pessimam materiem fundens, secunda vice excinditur. Malo in initio Maii iterum recrudescenti, apponit extractum cicutæ ad mentem Storkii paratum. Modus adhibendi hic erat; Sumebat scrup. j. extracti; apponebat loco sub lingua adfecto, relinquebat donec sua sponte liquecerit, & sensim deglutiebat. In initio ingenti stupore corripiebatur, qui tamen post aliquot dies ab eadem, immo aucta dosi, non amplius observabatur. Res sensim vertebatur in melius, & ulcus melius pus fundebat. Tunc temporis Roterodamum abit, navem conscendit, Londinum petiturus, aeris mutandi ergo. Dum navis propé Gravesande stat in anchoris, in continentem abit, obambulat, invenit ad ripam Thamesios australem ad radices montium, non longe ab urbe Gravesande juxta semitam Londinum versus, *cicutam*, odore magis virulento quam in Belgio præditam. Sumit secum non parum, parat ex succo expresso extractum, & pulvere foliorum leniter siccatorem addito, massam pilularum format; hoc

hoc remedio utitur, & intra 4 septimanas ad pristinam sanitatem restitutus, in Belgium redit. Utrum mutatio tam celeris effectus cicutæ, an aeris sit, determinare non audet.

Extracti in Anglia parati portionem ad servatam 1768, mense Junio dedit pharmacopolæ, qui narrat se ab his duabus unciis plus boni vidisse in femina cancro mammarum laborante, quam a multis libris extracti ex cicuta Belgica parati.

CASE III.

An ulcer of the lip, of a cancerous aspect,
cured by hemlock,

Jane Egbin, aged 56, was admitted into the Dispensary on the fourth of August 1773, for an ulcer of the under lip of a cancerous appearance: it had continued rebellious against a variety of applications for the space of several years; and, though at the commencement of the complaint, about ten years ago, it was troublesome

only from a hardness and dryness just perceptible in the lip, with slight shooting pains in the neighbouring parts, it became at length very much enlarged, and spread into an ulceration, which occupied the whole inferior lip, extending internally as far as the gums, discharging a thin fetid ichor, exciting violent lancinating pains about the face, and rendering the habit of the patient much emaciated.

I ordered ten grains of the hemlock, in powder, to be taken three times a day; and, in the space of a week, the addition of a few dishes of hemlock tea, first to be made weak, and gradually to be increased in strength. The ulcer was dressed with the following cerate twice a day; and, previous to the fresh dressing, the part was to be fomented with a decoction of hemlock, to wash off any remains of the former dressing, which by a long continuance might acquire a pernicious rancidity.

R. ol. amygd. rec.

Puly. cicuta ana drachmas duas,

Cer.

Cer. flav. drachmam, m. fiat ceratum.

This plan strictly pursued for the space of a month, greatly mitigated the pains, changed the thin ichorous discharge into well digested matter, and gave the edges of the ulcer a disposition to heal.

As I have sometimes observed that this, as well as every other powerful remedy, becomes less efficacious by constant repetition, I advised the patient to omit the hemlock for a week or ten days, and then to pursue it as before; and by this procedure the ulcer at the end of three months intirely healed, and no relapse has since ensued.

So far as my experience hath furnished me with facts of this kind, I have almost invariably had occasion to remark, that if a cancer should not be cured by the use of hemlock, after persevering a month in its exhibition, it proves more salutary by occasionally remitting it for some days, and then renewing again the former, or increased

creased doses of this vegetable ; this, I think, is supported by the general observation of practitioners, who remark that hemlock, although flattering at first, soon loses its influence ; and the ulcer, that once appeared favorable, degenerates into its pristine aspect and virulence.

C A S E IV.

A tumor of the breast cured with using hemlock.

Mary Peacock, aged 34, admitted January 27th, 1774, after having suckled her child about three months, lost it ; the breasts were neglected to be drawn during the space of five days, when she received an infant to nurse, which drew so violently before it could procure any milk from the breasts, as to excite in them the most severe pains, and at length a general fever took place, from which she was restored with great difficulty ; the milk during this illness intirely ceased, and one breast

breast was swelled to near the size of a child's head, with several unequal hard tumors, the largest of which was as big as a hen's egg.

℞ pulv. eccoprot. semi-scrupulum pro
re nata

℞ tinct. peruvian. spir. drachmas tres
ter die.

A poultice of bread and milk was daily applied to the breast; but although no symptoms of fever remained, and a small superficial tumor had suppurated, the lancinating pains continued, and the hardness of the breast likewise, till the latter end of February, when I prescribed,

℞ pulv. cicutæ semi-scrupulum ter die.

Appl. mamm. cataplasma ex cicutæ
drachm. bis die renovand.

Repet. tinct. peruv. spir.

The next week the shooting pains were nearly removed, the hardness of the breast was diminished, the sleep and appetite were improved, and the discharge from the tumor was stopt,

March

March 12. The breast was of its natural size, the hardness having vanished; and her health being restored, she was ordered to leave off the use of the cicuta, and to be discharged.

CASE V.

An obstinate head-ach cured by taking hemlock.

Martha Gibson, a young woman, 19 years old, was admitted to the Dispensary on the 18th of January 1774. She had been liable, upwards of two years, to very uneasy sensations of pain about the stomach, and lower parts of the back; and particularly in her head, where it was severe, and almost incessant, not having experienced one whole day's respite from its attack within the above space. She appeared of a healthy countenance, with regular menses, and other evacuations, as if in perfect health.

She tried for some time the fetid pills
and

and tincture; and afterwards the pulvis amarus and other bitters were prescribed, but no relief ensued; blisters did not mitigate her complaints, and mineral acids were equally ineffectual.

While I was hesitating what to attempt next, I recollected Dr. Fothergill's useful paper on the cicuta, and the tendency of it, as he remarks, to mitigate pain; which induced me to give it to this patient. On the first of March I ordered her to take five grains of the powdered hemlock three times a day, which in the space of a week eased the headach, as well as the complaints of the stomach, and induced her chearfully to persevere in the use of this remedy, the dose of which was now increased to ten grains thrice a day; and, in less than another week, she was void of any complaint. She continued under my care till April, during which interval no pain having occurred, she was discharged.

C A S E VI.

A tumor treated with saponaceous liniment.

Ann Winston, aged 28, was admitted February 15th, 1774. About three months ago she first observed a tumor behind the left ear, situated upon the inferior mammillary process; from which sharp shooting pains extended over the muscles on that side of the face: this tumor gradually augmenting to the size of a walnut, she came into the Dispensary, with great uneasiness of mind, on account of her sister, who about twelve months before died of a cancerous complaint, in the same situation behind the ear, which originated, as she observed, from a slight tumor in that part.

The patient had no other disorder. I ordered the linimentum saponaceum to be applied twice a day to this swelling, which
gra-

gradually subsided, and on the third of March she was discharged, cured.

From the unhappy circumstance attending the sister, the solicitude of the patient was very natural; and the success of a simple application to the tumor, affords a striking proof of the danger and uncertainty of attributing effects to medicines, they do not really possess: had this case come under the attention of a Storck, what glory might hemlock have acquired! but the saponaceous liniment is too well known, to derive any fame from the present instance of its efficacy.

* CASE VII.

Obstinate palpitation of the heart cured
by white vitriol.

John Dawson, a young man 19 years old, of a hypochondriac temperament, consulted me in the beginning of February 1774, for a palpitation of the heart, with great languor and debility, which succeeded

a violent fright in the year 1769, and ever since these symptoms had continued, with very short intermissions: the sleep was generally short and interrupted; the appetite little; and the agitation of spirits, and languor of body were often so considerable, as to prevent application to any business; he was then unhappy in himself, and a burthen to his friends.

Calcined magnesia was first prescribed, in order to correct any flatulence which might be suspected to arise from detached air in the stomach and bowels, and likewise with a view to absorb any acidities which might be accumulated in them; but little benefit resulted from the long use of this medicine.

I then prescribed the following mixture, which in a few days mitigated the palpitation and atonia, improved the appetite and digestion, and gave spirits to his drooping mind.

R vitriol. alb. scrupul. dua,

Aq.

Aq. alex. simp. uncias quatuor. m. cap.
 cochl. com. ter die.

Some weeks afterwards he called to inform me of the re-establishment of his health.

CASE VIII.

Salivation brought on by watch-gilding.

Joseph Sandover, aged 20, was admitted to the Dispensary on the 13th of January 1774. He was by trade a watch-gilder, in the exercise of which business, wherein quicksilver is principally used, a violent salivation came on, and most of his teeth were totally destroyed; his face was much enlarged; and the inflammation and swelling of the glands of the throat were so considerable, as nearly to deprive him of speech; the pains in these parts were also increased by frequent nausea and tendency to reaching.

R flor. sulphur. drachmam ter die,

R gargar. astring. sæp. utend.

Y

On

On the 27th the salivation ceased, but he continued extremely weak; upon which account I recommended the use of bark, which he took till the eighth of February, when he was discharged in perfect health.

That sulphur checks the effects of mercury is universally known; but where the inflammation in the throat endangers suffocation, bleeding is the most safe and speedy remedy; and from some instances that have occurred to me I am persuaded, the inflammation and swelling about the neck would have destroyed the patient, had this operation been neglected. In every one of these cases I have found the blood remarkably fizy, and firm in consistence; which, with some, would afford sufficient proof that mercury does not destroy the crasis of the blood, and promote its dissolution; but on the contrary, is so far from being septic, that it proves a very universal stimulant; and though I am not convinced that the fizyness of the blood, is a just criterion of the state of inflammation,

I never saw any reason to suspect that mercury had a septic effect upon the system.

C A S E IX.

Tremors brought on by watch-gilding.

David Bean, watch-gilder, of Featherstone-Street, Bunhill-Row, aged 20, was admitted February 24, 1774.

In December 1773, he perceived a slight unsteadiness or trembling in both arms; which, in a few weeks, increased to such a degree, that not only the arms were thrown into violent motions, but the body also was agitated, particularly when not supported by the back of a chair, or some fixed body to give him stability.

Several instances of this complaint have occurred to me within the last twelve months, and I have generally found the use of sulphur sufficient to remove it, with the addition of bark to strengthen the system. I ordered two drachms of flor.

fulphur. to be taken twice a day, and the arms to be as often anointed with the volatile liniment. This plan was continued for a few weeks : the sulphur proved moderately laxative ; and, though the patient continued in his business during the whole time, the tremors gradually subsided ; after which, by using the decoction of bark about a week, his strength returned, and perfect health was restored. In March 1774, he was discharged.

* CASES X and XI.

Abscesses from infection.

A surgeon in a considerable hospital in London, opened a large abscess, soon after having received a small cut on one finger : in the space of a very few days a soreness and rigidity were perceptible in that finger, which gradually extended along the course of the lymphatics, as high as the arm-pit, in which part a large tumor succeeded, as well

well as several others of less size about the middle of the arm : these continued near a week without much variation ; but the cut in the finger was healed. The gentleman being suspicious that the abscess he had opened, might have originated from a venereal taint, was much concerned about the event ; and was hence induced, at this period, to apply mercurial ointment to the hand and arm, as well as to take mercury internally : the next day several inflamed tumors, or small gatherings, appeared on the internal wrist, which suppurated ; and the rigidity and induration of the arm very soon subsided.

These small suppurations could not have been excited by the short use of the mercurials ; and probably the disease might have vanished without this application : but, besides the free use of the bark, now first admitted, mercurials were persisted in for about a week, as an antidote to any venereal virus, supposing the same had been absorbed ; as not long before this incident,

a young gentleman had the venereal disease artificially communicated by a cut of a finger, which required the same use of mercurials to eradicate the infection, as would have been requisite, had it been communicated in the ordinary way.

A physician of eminence in midwifery, with whom I have the pleasure to be acquainted, was sent for to attend a lady in the neighbourhood of this city, under a difficult labor: the child had been some time dead, and the arm, which presented, was mortified. The physician, by some accident, had slightly wounded one of his fingers, which he was obliged to employ in assisting the unhappy case under his care: in a day or two afterwards, he perceived a rigidity in the hand and arm, extending along the course of the lymphatics to the arm-pit, under which a tumor succeeded; the whole hand was greatly swelled, as well as the fore-arm, and the use of the former was almost totally lost: he was, indeed, just capable of bend-

bending the fingers, but it was with exquisite pain. In about a week's time the tumor subsided, but the rigidity and incapacity of action continued, and the swelling of the hand and arm; the cut, however, where the infection was supposed to have been absorbed, was perfectly healed.

At this period I saw my friend, who united with me in opinion, that bark should be taken internally, and mercurial ointment, carefully made without turpentine, applied to the hand: in three days there appeared a sensible diminution of the swelling, and the rigidity had likewise abated: the same plan continued a week longer, restored, in great measure, the action of the parts, with which the swelling diminished, but did not totally subside for several weeks afterwards; however, no other complaint supervened.

C A S E S XII. and XIII.

Fixed air employed in a gangrene, and
in a phthisis pulmonalis,

P. B. a gentleman of the faculty, was attacked in March 1774, with fever and an inflammation (*) in the intestines, which terminated in a gangrene; at least the symptoms indicated this progress, for he was not opened after his decease: but two days preceding his death, the pains mitigated, the abdomen became remarkably tense and swelled, with vomiting, little urine, insomnolency, a pulse of 140, hiccups, &c.

After a laxative glyster had been given, and a draught with six drachms of castor

(*) Before the inflammation of the intestines was suspected, a stiffness, redness, and great pain of the thigh came on, which vanished after a poultice of bread and milk had been a few hours applied; as the pain mitigated in this part, the abdomen became more uneasy; but the fever came on some days before any complaint was made of pain in the abdomen.

oil,

oil, which procured little or no effect, the following was prescribed in concert with Dr. Sims, and other gentlemen of the faculty.

℞ infus. cort. peruv. uncias duas, fiat
haust. alternis horis repetend.

℞ aq. cinnam. ten. unciam,

Sal. absinth. scrupulum, fiat haust.
sumend. quartis horis ; postquam
quamprimum capiat succ. aurant.
sevill. fescunciam, ut inde fermenta-
tio in ventriculo excitetur.

Warm fomentations were frequently applied to the abdomen ; wine was often given ; and, besides the saline draughts, a clyster of fixed air was administered every three hours, and Seltzer water, which contains a large portion of this air, was taken at intervals : but they availed not ; vomiting and hiccups succeeded, and death closed the tragedy ; although these attempts had been persisted in, from the first suspicion of a mortification, and at least for
four

four and twenty hours before the vomiting ensued.

A few similar cases have come under my observation, and likewise one dysentery, wherein fixed air, though copiously exhibited, did not appear to procure any respite.

The public is undoubtedly much indebted to Dr. Priestley and Dr. Percival, for their philosophical inquiries respecting a subject, which promises such utility in medicine, although few of the histories they have recorded, plead much in its favor (*): in a gangrene of the intestines, which

(*) Dr. Priestley has not indeed related any success he ever saw himself; and the recovery of a single putrid fever, after its use, as mentioned on the authority of Mr. Hey, is very insufficient to ascertain the efficacy of fixed air, especially as this fact is so vaguely described. Vid. directions for impregnating water with fixed air, p. 18, and observations on different kinds of air.

Dr. Percival's facts are not much more favorable to this species of air; for he declares, that out of thirty cases of the phthisis pulmonalis, not one was cured, though the hectic fever was abated: in his cancerous case it failed, and

which is more a local disease than a dysentery, or a putrid fever; its success might appear flattering, and with me it has been no more.

I tried it also in a phthisis pulmonalis, after a rupture of a vomica, in a patient where a favorable degree of strength remained; but it was evidently injurious; the expectoration was neither sweetened, nor diminished, nor was any one symptom mitigated: in this case the vapor from fermenting liquor was breathed into the lungs.

If theory may be admitted where facts are wanting, it is natural to expect from the known antiseptic qualities of fixed air, that it may prove of considerable
advan-

as to his diarrhæa in malignant fevers, I presume the first section will evince, how easily this disease may be cured without it. Vide Percival's experimental essays, vol. 2. p. 71. I confess, however, with pleasure, that the impartiality with which they have acknowledged the inefficacy of a remedy they appear so much prejudiced in favor of, does them real honor; they have related facts without warping them to fit their theory.

advantage in certain putrescent diseases; though not in the phthisis pulmonalis, as the lungs are constantly throwing off a quantity of fixed air in their healthy state, and, when diseased, are probably greatly overloaded with it.

The method of collecting fixed air, and of making Pyrmont water, related by Dr. Priestley, are very easy and familiar; but these were described in a similar manner by Dr. Black, in Edinburgh, many years ago. That celebrated, but modest chymist, has been the author of many other discoveries, the honor of which he has never assumed.

C A S E XIV.

Martha Bancroft, aged 24, of a fair complexion and light colored hair, and of a hectic habit, was admitted to the General Dispensary in the summer of 1773. She had then a very troublesome cough, acute pain in the right side, profuse night sweats, expectoration of purulent matter, hectic fever,

fever, and other symptoms indicating a pulmonary consumption.

She was ordered an antiphlogistic or vegetable diet, nitrous and oleaginous medicines, vesicatories to the side, and bleeding now and then when the pulse was hard, or the pain augmented.

Though she lingered many months, with flattering hopes of recovery, the complaints did not cease; the expectoration rather increased, the menses were profuse, and likewise the sweats; a diarrhæa ensued, and she gradually sunk under complicated misery in the beginning of April 1774.

On opening the thorax the lungs were found chiefly diseased; the right lobe adhered firmly to the pleura, but both lobes appeared principally to consist of numerous little tubercles, many of which were in a state of suppuration: some of these were larger, and upon cutting into them, they seemed totally matured, pouring out a free discharge of purulent matter. The liver was somewhat enlarged, with several

veral small tumors interspersed through its substance ; but the mesenteric glands, and the abdominal viscera, did not appear diseased.

I have opened several other pulmonary consumptions, with similar appearances in the lungs ; in one or two instances I have found one lobe of the lungs intirely destroyed, or converted into a sea of matter, in which state the patient must have survived some months breathing into one lobe only. In some cases, where other diseases have killed, I have seen a few recent tubercles, situated immediately under the tunic of the lungs, which might probably have been sustained with little or no inconvenience.

In the latter case, a steady attention to a cool vegetable regimen, with moderate exercise, and proper air, would probably prevent any inflammation or suppuration of such indolent tumors ; but whenever suppuration takes place in these tubercles,
by

by what means shall the Augean stable be cleansed !

Prevention will appear the most eligible attempt in cases where hectic symptoms arise, agreeable to those excellent directions laid down by Dr. Fothergill in the Medical Inquiries ; to which I would add the repeated application of blisters to the sides, one or other being usually attacked with pains more or less acute.

With these precautions, hectic symptoms of a dangerous aspect, where the night sweats have been profuse, expectoration copious, the fever considerable, and pains of the sides acute, have been intirely removed, and a tolerable firmness of health established.

C A S E X V .

Some account of a deaf person, who understood the motion of the lips.

Henry Humphry, aged 66, was admitted February the eighth 1774, for an asthmatic

matic complaint. About 45 years ago this person lost his hearing, without any evident cause, though he observed, that about that time he had received very hard treatment from his father, who frequently beat him severely about the head; besides which he had suffered several accidents, and particularly had fallen from a horse once or twice: these circumstances, however, did not appear to produce any immediate effect on his hearing.

He still recollects having heard sounds, and what impressions they formerly produced upon him; and he now seemed to have a distinct notion of the different manner in which the senses are affected by the application of different objects: certain loud noises he is capable of hearing distinctly, particularly those of drums or guns, and the tunes of the former he can even distinguish; but unless he see whence these noises proceed, he cannot form any idea of their vicinity to him: from this circumstance, although he knows the rolling

ing of a coach, he has been often in danger of being run over by it, when he has not seen it : if in a church, while the bells are ringing, he can hear the noise : but it is imperceptible to him when he stands in the open street ; and so is every other sound, unless the place on which he is situated be shaken. When he stands on a boarded room, the least rap or stroke on the floor, or on a table near him, is clearly heard ; but if a noise equally loud be made, on any body suspended by a string, unconnected with the floor, he cannot perceive the sound ; or if he stand on a stone or marble hearth in the same room, he is incapable of hearing, except a very considerable noise be made, sufficient to shake the hearth.

When he stops both ears and shuts his mouth, it produces no effect upon his hearing : if he take the end of a stick between his teeth, he perceives the least stroke made upon it, but the sound of words cannot be communicated along the stick.

I examined his ears carefully, without being able to discover any unusual appearance ; they had, indeed, some wax in them, but syringing them did not alter his deafness.

His wife converses with him, with great facility, by the motion of her lips, which she does by speaking slowly, and opening her mouth pretty wide ; and any other person, by a little practice, may acquire the same method of conversing with him, to which purpose it is necessary to be situated exactly facing him ; even his wife is obliged to adopt this precaution. At my third visit he was capable of understanding my motions tolerably well ; though, when I first saw him, they were totally unintelligible.

S E C T.

S E C T . VIII.

Tables of Diseases and Deaths for one
Year.

FROM the useful hints suggested by my ingenious friend Dr. Percival in his medical experiments, I was induced to keep an exact register of the diseases and deaths, which fell under my observation in the General Dispensary, agreeable to the following tables, which include a period of twelve months.

The London bills of mortality have long been deemed incorrect, and indeed very justly; the reports being generally taken from nurses, or ignorant domestics, who are frequently unacquainted with the pro-

per names and distinctions of the diseases recorded in those yearly accounts.

If no other use result from the following tables, a comparison of them with the London bills, may afford amusement at least to some readers.

TABLE

T A B L E I.

A general view of all the patients admitted, &c. to the General Dispensary, under the author's care, during twelve months.

	1773 Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	1774 Jan.	Feb.	Mar.	Total.
Number admitted — —	80	128	118	127	105	111	134	131	144	186	169	217	1650
Returned thanks for their cure —	70	118	111	105	100	102	127	120	129	179	161	208	1541
Improper objects and persons not likely to receive benefit —	1	4	1	3	2	0	0	3	5	3	2	4	28
Discharged for not attending —	4	3	3	5	1	5	5	3	2	1	2	3	37
Dead — —	5	3	3	4	2	4	2	4	8	3	4	2	44
Total — —	80	128	118	127	105	111	134	131	144	186	169	217	1650
Amongst these were attended at their own houses — —	31	33	34	57	31	40	39	50	54	58	48	37	512

Proportion of deaths, one in $37\frac{1}{2}$, or about five deaths in every 200 patients.

TABLE II.

An account of the different diseases in each month, of the foregoing patients in Table I.

	1773 April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	1774 Jan.	Feb.	March.	Total
Abortus	—	1	—	—	—	—	—	—	—	2	—	—	4
Anasarca	—	—	—	—	—	—	—	3	—	1	—	3	9
Angina inflammatoria	—	—	—	—	—	—	—	—	—	—	—	1	4
Angina maligna	—	—	—	—	—	—	—	—	—	1	—	2	4
Arthritis	—	—	—	—	—	—	—	—	—	—	—	—	—
Asthma & dyspnæa	—	1	6	7	5	6	2	5	9	14	13	7	84
Atonia	—	1	3	—	—	—	—	1	—	3	3	2	13
Calculus vel lithiasis	—	2	2	—	—	2	—	—	—	—	—	2	8
Carcinoma vel Cancrum	—	—	1	—	—	—	—	—	—	—	—	—	3
Cephalalgia & vertigo	—	1	2	6	1	3	5	4	3	4	4	3	42
Cholera morbus, colica & passio iliaca	—	1	1	3	1	2	4	4	3	6	2	6	45
Constipatio alvina	—	—	—	—	—	—	—	—	—	—	—	—	—
Contusio	—	—	—	—	—	—	—	—	—	—	—	2	7
Convulsio & spasmus	—	2	4	2	—	—	—	1	—	—	—	3	19
Dentitio	—	1	3	1	6	4	—	—	—	—	—	6	23
Diarrhæa & dysenteria	—	—	4	4	2	7	7	8	7	11	4	10	74
Dysuria	—	—	—	—	—	—	—	—	—	—	—	—	—
Epilepsia	—	—	—	1	1	—	—	—	—	—	—	1	9
Erysipelas	—	—	—	—	—	—	1	1	2	—	1	1	7
Febris hectica	—	2	2	4	13	4	2	9	4	12	18	13	86
Febris inflammatoria	—	—	—	—	—	—	—	—	—	—	—	—	—
Febris intermittens	—	3	1	—	1	1	1	—	—	1	2	2	22
Febris nervosa	—	4	3	4	14	7	11	4	5	1	5	4	65
Febris putrida	—	14	19	14	25	14	21	34	22	11	6	7	194
Febris remittens	—	6	10	5	4	3	6	7	3	12	13	10	82
Febris simplex vel Dia- rhum	—	—	—	—	—	—	—	—	—	—	—	—	—
Fluor albus	—	—	2	—	3	—	—	—	1	2	—	4	12
Gutta serena	—	—	—	—	—	—	—	—	—	—	—	1	1
Hæmoptoe	—	1	2	3	3	—	3	—	—	1	3	—	13
Hæmorrhagia	—	—	—	—	—	—	—	—	—	2	—	—	2
Hæmorrhoids	—	—	3	—	—	2	1	—	1	—	—	2	9
Hepatitis	—	—	—	—	—	—	—	—	—	—	—	—	—
Herpes	—	—	—	—	—	—	—	1	—	—	—	2	3
Hydrocephalus internus	—	—	—	—	—	—	—	—	—	—	—	1	1
Carried forward	40	70	62	83	62	67	82	71	82	87	79	88	87

TABLE II. continued.

An account of the different diseases in each month, of the foregoing patients in Table I.

	1773 Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	1774 Jan.	Feb.	Mar.	Total.
Brought forward	40	70	62	83	62	67	82	71	82	87	79	88	873
Hydrops pectoris & ascites	3	4		2	5	3		5	5	3	3	3	36
Hysteria	3	4	3		5	1	2		2	3	7	6	36
Icterus	1	1	3		1		1	2	1	1		2	13
Lepra Ichthyosis	—			1		2	1	1	1		2		7
Lues venerea	—	1					2	1	1	2	1		8
Mensium obstructio		1	1	3	2	3		2		1	1	5	20
Mensium profluvium	2			2	2	6				3	2	5	22
Mensium suppressio		2	1		3					1		2	9
Morbilli	—						3		1	2	1	1	8
Ophthalmia	—	1	2			3	1		1	1	1		9
Palpitatio cordis & cardialgia				1	8	3	1	1			1		15
Paralysis	—	1	2	1	1	5		2		1	3	4	18
Phthisis pulmonalis	8	7	5	3	3	2	3	4	5	8	5	3	56
Pleuritis	2	1	4	1	1	1	2	4	5	5	0		32
Prolapsus ani & pro-							1	1		1	1		5
cidencia uteri				1									
Plora	—	1	3	4	2	3	5	5	3	11	5	4	46
Rabies canina	—	1				1			1	1			3
Rachitis	—	2			1				1				4
Rheumatismus & sciatica	4	10	11	8	8	7	14	12	4	15	16	19	128
Salivatio spontanea	—								1	1	1		2
Scorbutus	2	4	3	2					1	1	2	4	19
Struma vel scrophula	—		4	2						2	3	2	13
Tinea capitis	—	1							2	2	2	7	14
Tussis & catarrhus	8	5	1	4			3	7	9	12	10	21	80
Tussis convulsiva vel pertussis	1			1	1		1	2	4	5	14	18	47
Ulcus, abscessus, & hernia	—	1	2		2		2	1		2		4	14
Uterus scirrhusos	—				1	1	2	2	2			3	11
Variolæ	—	1								1			2
Ventriculi symptomata	4	2	6	3		3	4	8	10	8	10	15	73
Vermes	—	1	2		4	1	3	1	4	5	1	2	24
Vesania & Mania	—								1		1	1	3
Vomitus diuturnus	—	3	2			1	1		1	1	3		10
Total each month	80	128	118	127	105	111	134	131	144	186	169	217	1650

TABLE III.

List of deaths in each month out of the foregoing table (II.) of diseases, with the age of each patient expressed by the figures : a comma placed after the figure or number implies that such patient was a bachelor ; a semi-colon is put after a married man ; a colon after a widower ; a period after a maid ; an asterisk after a married woman ; and an obelisk after a widow.

	1773 Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	1774 Jan.	Feb.	Mar.	Total of each disease.
Apoplexia										40;	71;		2
Asthma							56*	50;					2
Cholera } morbis }									36*				1
Dentitio									$\frac{1}{2}$ *	1,			2
Dysenteria								1 $\frac{1}{2}$ *					1
Epilepsia											71;		1
Febris } hectica }	3.			38;					36*				3
Febris } putrida }		46*		{60;5, 54;	40;	39*	45*	37.					8
Febris } nervosa }					48;			16.	41*				3
Hæmoptoe						36*			{60† 60*				1
Hydrops	45;	1.				35;			{60† 60*		38;		6
Paralysis						70;							1
Pertussis											$\frac{1}{2}$ *		1
Phthisis } pulmo- }	24;		7;						{38; 44;				12
palis }	30; 2 $\frac{1}{2}$;	2,	{50; 43;							35.	{24; 3,		
Total in each month }	5	3	3	4	2	4	2	4	8	3	4	2	Total deaths, 44

S E C T. IX.

Formulæ of the General Dispensary.

IN the preceeding pages, I have often referred to certain formulæ of medicines used in the General Dispensary; but as the pharmacopœa of this institution was never published, the reader must be unacquainted with its contents; on which account I have given, under one head, every recipe necessary to elucidate the foregoing references.

Acetum colchici.

℞ colchici autumnal. rad. rec. unciam
unam,

Aceti libram unam : digere lento igne
per 48 horas, & cola.

Ace-

Acetum scilliticum. Pharm. Lond.

Aqua hordeata. pharm. Lond.

Aqua picea.

℞ pic. liquid. libras duas,

Aq. pur. cong. unum,

Sal. cath. amar. uncias duas,

Aqua & pix subinde bacillo ligneo valide agitentur, & post biduum effundatur aqua, & sal adjiciatur.

Aqua piper. jamaicensis spir.

℞ piper. jamaic. semi-libram,

Spir. vin. ten. cong. tres.

Aquæ q. s. ad evitandum empyreuma.

Distillatione eliciantur congii tres.

Ceratum commune.

℞ fevi ovil. recent. uncias octo.

Ceræ flav. incif. drachmas duas: liquefiant simul in balneo arenæ & misce.

Col-

Collyrium saturninum.

℞ sacchar. saturn. gran. xvi.

Aquæ pur. libram unam : solve, & per
chartam cola.

Decoctum peruvianum.

℞ pulv. cortic. peruv. uncias duas,

Piper. jamaic. pulv. scrupula dua,

Aq. bullient. libras duas,

Macera, & liquorem frige factum cola;

tum fæces coque in aquæ puræ libra

una ad partes dimidias, deinde cola,

liquori jam dicto adjiciatur succus

colatus.

Decoctum ulmi.

℞ cort. intern. ulmi recent. uncias qua-
tuor.

Aquæ libras tres,

Coque ad colaturæ libras duas.

Elixir sudorificum.

℞ rad. ipecac.

Bals. tolu tan. ana semi-unciam,

Flor.

Flor. benzoin,
 Opii colat.
 Croci ana drachmas duas,
 Camphor. scrupula quatuor,
 Ol. anis. essent. drachmam,
 Spir. vin. rect. libras duas : digere &
 cola. Elixir semi-uncia habet opii
 gran. dua.

Empl. vesicatorium, pharm. Lond.

Emulsio oleosa.

R ol. olivar. pur.
 Mucil. arabic. ana, uncias duas,
 Aq. pur. uncias quatuor; oleum &
 mucilago primum simul terantur,
 donec in unum coëant, tum aqua
 sensim admisceatur.

Emuls. oleos. volat.

R ol. olivar pur. uncias duas,
 Spir. corn. cerv. drachmam,
 Aquæ pur. uncias sex; oleum & aqua
 interposito spiritu, miscenda manu
 sunt, donec albescant.

Enema

Enema commune.

℞ aquæ, in qua farina avenæ decocta
 sit, libram unam,
 Ol. olivar. cochlearia quatuor,
 Sal. marin. coch. unum, misce.

Gargarisma astringens

℞ Aq. pur. uncias octo,
 Alumin. drachmas duas; misce.

Haustus emeticus.

℞ pulv. rad. ipecac. gran. quindecim,
 Julep. emetic. unciam unam,
 Spir. volatil. arom. guttas viginti,
 Syr. simplic. drachmas duas: misce.

Infusum amarum.

℞ ingredient. amar. semi-unciam,
 Aq. bullient. libram unam; post macerationem per horas duodecim, cola.

Infusum quassæ.

℞ lign. quass. rasur. drachmas duas,
 Aq. bullient. libras tres; macera per horas quatuor, tum cola.

Infusum

Infusum Senæ.

℞ fol. senæ unciam unam,

Cryst. tartar. drachmas tres,

Radic. zinziber. drachmam,

Aquæ libram : crystallos tartari in
aqua coquendo solve, tum aquam
adhuc bullientem reliquis affunde,
& postquam refrixerit, cola.

Ingredientia amara.

℞ Rad. gentian.

Cort. aurant. ficcæ.

Flor. chamæm. siccæ.

Bacc. juniper. ana, semi-libram : tria
prima sicco in loco posita sint, donec
friabilia natura fiant, deinde, sepa-
ratim in pulverem crassum con-
tundantur, & denique omnia, baccis
juniperi primum contusis, simul
misceantur.

Julepum emeticum.

℞ tartar. emetic. gran. sexdecim,

Aq. pur. libram, misce.

Julepi

Julepi uncia habet tartari emetici granum unum.

Linimentum saponaceum.

℞ spir. vin. ten. libram unam,
Sapon. dur. hisp. uncias tres,
Camphor. unciam:
Digere saponem in spiritu dum solutus
sit, deinde adde camphoram.

Linimentum volatile, P. Lond.

Mistura acida.

℞ aq. pur. uncias octo,
Spir. vitr. ten. q. s. ad gratam; misce.

Mistura anodyna.

℞ aq. pur. uncias sex,
Tinct. thebaic. guttas quadraginta,
misce.

Mistura colchici.

℞ oxym. colchici, uncias duas,
Aq. pur. uncias octo; misce.

Mistura

Mistura emetica.

℞ oxym. scillit. unciam,
Julep. emetic. uncias septem ; misce.

Mistura peruviana.

℞ pulv. cortic. peruv. uncias duas,
Tinct. aromat. unciam,
Aq. pur. uncias quindecim ; pulvis
cum tinctura primum misceatur,
tum adjiciatur aqua. Misturæ un-
cia habet cort. peruv. drachmam.

Mistura spermatica.

℞ sperm. ceti drachmas duas,
Test. ostreor. prepar. grana decem,
Mucil. arabic. semi-unciam,
Aq. pur. uncias octo ; sperma & testa
primum per se bene terantur, tum
paulatim addatur mucilago, & de-
nique aqua.

Mistura spermatica nitrosa.

Addatur misturæ sperm. nitri drachma.

Mistura

Mistura spermatica volatilis.

Addatur misturæ sperm.

Spir. corn. cerv. vol. drachma.

Mistura theriaca.

℞ oxytheriac. uncias duas,

Aq. pur. uncias sex; misce.

Mucilago arabica.

℞ gum. arabic. uncias octo,

Aq. pur. libram; solve.

Oxymel colchici.

℞ acet. colchici libram unam,

Molassis libras duas, misce, & supra
molli igne sæpius agitando coch-
leario ligneo, coque ad syrapi con-
sistentiam.

Oxymel scilliticum.

℞ syrapi, a saccharo inter purificandum,
defluentis (vulgo molasses appellati)
libras duas,

Aceti scillit. libras duas; coque in vase
fictili vitreato, lenique igne, ad sy-
rapi spissitudinem.

A a

Oxytheriaca.

Oxytheriaca.

℞ molassis libras duas,
 Aceti libram,
 Coque in vase fictili vitreato, lenique
 igne, ad syrupi spissitudinem.

Pilulæ mercuriales.

℞ argent. viv. uncias duas,
 mucilag. arab. crass. uncias quatuor.
 Argentum vivum cum mucilagine pri-
 mo tere, donec ejus nullum vesti-
 gium appareat; deinde addatur pul-
 veris glycyrrhizæ q. s. ad pilulas
 formandas.

Pilulæ rus.

℞ aloës focat. uncias duas,
 Gum. myrrh.
 Spec. aromat. ana, unciam unam,
 Syrupo simplici fiant pilulæ.

Potus tartarizatus.

℞ aq. hordeat. libras duas,
 Pulv. tartar. drachmam pulverem; in
 aqua coquendo solve.

Pulvis

Pulvis amarus.

Flor. chamæm. pulv.

Pulvis antispasmodicus.

R sacchar. pur. drachmas duas,

Flor. zinci grana duodecim, simul bene
terantur, ut fiat pulvis subtilissimus.

Pulveris semi-scrupulum habet zinci
granum unum.

Pulvis catharticus.

R pulv. rad. jalap. uncias tres,

Cryst. tartar. unciam,

Spec. aromat. drachmas duas; fiat
pulvis. Grana septendecim habent
jalap. grana duodecim, tartari grana
quatuor, spec. granum unum.

Pulvis eccoproticus.

R tart. vitriol.

Pulv. rhubarb. ana, unciam unam, fiat
pulvis.

Pulvis deobstruens.

R merc. dulc. sublim. præp. semi-un-
ciam,

Flor. sulphur. unciam.

Terantur simul in mortario vitreo, aut lapideo, donec in totum misceantur.

Gran. quindecim habent mercurii gran. quinque, sulphuris grana decem.

Pulvis febrifugus.

R amyli unciam,

Tart. emetic. grana triginti duo; peroptime simul misceantur, in mortario vitreo, ut subtilissimus fiat pulvis. Grana sexdecim pulveris habent tartari emetici granum unum.

Pulvis mercurialis.

R merc. dulc. sublim. præpar.

Sacchar. pur. ana, semi-unciam; in mortario vitreo, vel marmoreo, simul terantur ut fiat pollen.

Pulvis nitrosus.

R nitri pur. pulv. uncias octo,

Pulv.

Pulv. lign. campech. scrupulum; misce.

Pulvis solutivus.

℞ pulv. jalap. uncias duas,

Crystal. tartar. pulv. unciam,

Spec. aromat. drachmam; misce.

Pulvis tartarizatus.

℞ crystal. tartar. drachmas tres,

Sal. tartar. drachmam unam, fiat pulvis.

Species aromaticæ.

℞ rad. zinzib. unciam,

Sem. fœnicul. dulc.

— Anis. ana, semi-unciam; separatim in pulverem contundantur, deinde misceantur.

Spiritus vitrioli tenuis. Pharm. Lond.

Tinctura aromatica.

℞ calyc. casia fescunciam,

Sacchar. pur. drachmas duas,

Spir. vin. ten. libram;

A a 3

Calyc.

Calyc. & saccharum primo simul terantur, tum addatur spiritus, & digerantur sine calore, & cola.

Tinctura cantharidum. Pharm. Lond.

Tinctura peruviana spirituosâ, Pharm. Lond.

Unguentum mercuriale, Pharm. Lond.

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